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International Management

March 1961

East Europe's "common market" Takes Shape

A U.S. Union Seeks Allies Overseas

A Collection of New Products & Processes

India on the Eve of the Plan

New Man at the Helm in Eindhoven

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American Letter

Offense is the best defense

The first "battle of the dollar" seemed won last month, but the "war" is by no means over.

The Kennedy government is stressing expansive rather than restrictive measures in its defense of the dollar. By the looks of things—calming down in the gold markets, increasing demand for dollars—bankers, investors, and speculators may give the Kennedy prescription a chance to take hold.

Businessmen should note the following:

1. The U.S. export drive will be strengthened, with more government promotion and credit insurance. More tied-loans? Kennedy sees them as a temporary expedient, much prefers aid with "no strings."

2. Cutting U.S. tourists' duty-free exemption, and spending by soldiers overseas, will not hurt foreigners much. And Kennedy is against curbing imports generally. But there's no doubt that U.S. citizens are becoming more inclined to "buy American."

3. There will probably be no drastic changes in the tax treatment of U.S. foreign investment.

4. There will be more incentive for foreigners to invest in, and travel in, the U.S.A.

5. These and other measures—backed by Kennedy's pledge to use all the gold and other resources at his command to defend the dollar—have chilled the ordor of speculators. Their cue now seems to be "wait and see." They want to be shown that Kennedy can expand the domestic economy without courting inflation—and more dollar trouble.

Protectionist labor

The Kennedy Administration will be fighting a stiff rearguard action with protectionism at home. And the protectionists are fast gathering new recruits from the ranks of American trade unions. For the labor assault against imports—heretofore confined to the textile trades and a few other specialist unions—has spread into some important manufacturing unions.

Boycotts of foreign parts and materials have been threatened. One Chicago union announced it will refuse to work on Japanese electronic components after May 1. The objective is to "stir up public sentiment," but at least one manufacturer has cut back on his purchase of Japanese parts. There are similar threats in clothing and machine components.

Congress is being pressed with proposals to bar tariff-cutting, to remove the President's right to veto recommendations of the Tariff Commission. Coal miners want higher quotas on residual oil; smelter workers want restrictions on lead, zinc, and copper. Others advocate legislation to require U.S. manufacturers to label all foreign materials used in their product (a similar proposal was vetoed last year by President Eisenhower); or to make tariffs equal to the difference between wages paid foreign workers and the minimum wage in the U.S.A.

Yet there is no indication that President Kennedy will be pushed into major trade restrictions. Note his two recent decisions against tariff rises.

The alternative to restrictions on trade: Kennedy will support a program to aid businesses that are hurt as a direct result of imports. This program will involve "adjustment assistance," such as low-interest loans to help a company improve its competitive position, shift to another line of business, retain workers.

He can count on the national leadership, and the growing international interests, of the American labor movement for help. Cries for import restrictions within labor ranks are an embarrassment to many AFL-CIO leaders (see page 17) who are cooperating with the international labor secretariats to raise wage standards worldwide.

A business reaction

Last September, Remington Rand division of the Sperry Rand Corp. decided to move production of standard typewriters to Europe. Now the deal is off.

The company explains it does not want to "aggravate" the current recession's influence on the workers and the city where the typewriter plant is located (though management hastened to add that it is confident that recovery is "imminent"). Secondly, Rem Rand says it wants to avoid adding to the outflow of dollars. But the company will set up a headquarters in Switzerland to oversee existing foreign operations.

Meanwhile, there were reports that several New York banks have reminded customers making inquiry about buying foreign currency and short-term securities that such purchases—about $1,000-million worth last year—were a big factor in the payments deficit and gold loss. Presumably the banks were not discouraging customers, just explaining.

These instances are not evidence of a "trend"—yet. But they illustrate the impact of world economic worries on American businessmen.

turn the page

Letter from Miami

Miami is still the sunny "playground of the Americas" its publicity men advertise: sleek yachts and long autos, "fast women and slow horses" (a familiar horse-players' lament), gaudy hotels—often with guests to match. Conspicuous consumption at its most conspicuous.

So it comes as a revelation to outsiders that metropolitan Miami is growing up as an industrial, financial, cultural center. Once solely a vacation land, it is making a quite graceful transition to a more stable, diversified community.

Even tourism is more diversified. The annual influx of visitors (equal to almost four times the area's one-million residents) has changed from "class" to "mass"—reaching a peak in August, when rates are low, instead of the high season of February and March. Winter visitors sow the big money crop, to be sure. But the budget-minded summer folk may be more important than ever if, as some suspect, the lure of the Caribbean islands is causing some of the regular winter visitors to bypass Florida.

Another balancing factor: Miami's superb convention facilities are attracting more national business meetings.

First, note the population increase: one new permanent Miamian every 12 minutes. Industry, too: The Miami area is attracting more new businesses with 25 or more employees than any other section of the U.S.A. While land is dear, many operating expenses are low (for example, construction costs and absenteeism).

Light industry and services—in perhaps the richest per capita retail market in the U.S.—are the key. Development officials seek electronics, precision goods, TV production, drugs, light metal and plastic forming, insurance. Those that have come find the weather warm, and competition hot. Sometimes uncomfortably so, as the local bankruptcy rate attests.

Miami is feeling the effects of the U.S. recession. But this only means "we are growing fast slower," according to one executive. A new $250-million motor expressway and a $20-million port facility is underway; ground will be broken soon for a big office building. And the two-year-old, $78-million airport may be already outdated: Miami claims to handle, as a trans-shipment point, the world's largest international air cargo volume, and the U.S.A.'s third largest international air passenger volume.

Miami has long boasted of its position as gateway to Latin America. But city fathers have found in the last year that their international affairs are not always easy and profitable—for they are struggling with the problems of tens of thousands of refugees from Castro's Cuba. Before the U.S.A. broke diplomatic relations, they were coming at a rate of 1600 weekly, compounding the city's own unemployment problem. Poor Latin Americans instead of the rich ones Miami is used to.

Loss of Cuban trade hurts, too—and Floridians worry about the spread of *fidelismo* elsewhere among their Latin neighbors. These sober concerns have led citizens of one suburb to establish their own cultural exchange program with the city of Cartagena, Colombia, featuring visits back and forth by students, businessmen, and others. Miamians are impressed that the Organization of American States recently set up an office in the city—the first outside the national capitals of the member nations.

Worrying about unemployment, industry, and internationalism is a far cry from operating a playground. But Miamians seem to take the change in their stride.

A copper "cartel"?

One of the most influential Senators among President Kennedy's "new frontiersmen" urgently recommends an international conference to stabilize world copper prices. "Cartelization of sorts," he calls it, under careful supervision, aiming at steady world production and firm prices on an agreed-to, year-round basis. "I have come to the conclusion that in special situations they [cartels] can perform a strong and worthwhile industrial use."

"Politics!", say many businessmen, noting that the Senator in question is from an important mining state. Yet others take it more seriously—another sign that the Americans are becoming more interested in international commodity schemes (IM—Feb, p3).

Yet more "compacts"?

If "compact" cars sell so well, how about compact appliances? The Wall Street Journal finds appliance makers, struggling with large inventories and not-so-large sales, beginning to "think small." Several companies are making (or importing) small-scale refrigerators for apartments, offices, boats, or as a "second refrigerator" in the home. There's a compact dishwasher, clotheswasher, small freezer as well. Indeed, one manufacturer detects a "trend toward smaller kitchens".

Pledge for education?

Twenty-one Cleveland (Ohio) corporations last month pledged themselves to give at least 1% of their pre-tax profits to aid colleges and universities. (On the average, American companies contribute three-tenth of 1%.)

It is a dramatic development, and in education-conscious U.S.A. the idea may spread. That could mean an increase from $150-million to more than $500-million in corporate assistance to higher education. One benefit of the Cleveland plan: By acting together, the companies can minimize complaints from stockholders worried about their dividends.

Soulsearching in Britain . . .

There is a parallel between President Kennedy's election battlecry—"let's get America moving again"—and the soulsearching going on in Britain. The Times put it bluntly: "Britain's economic life has been falling behind in vigor, ingenuity, industry, and imagination."

Statistics tell the story. British production has risen half as much as continental Europe's over the past eight years; exports have lagged way behind. The rise in reserves gives scant comfort: Much is in "hot" money which is expected to leave as interest rates come down. This could mean real trouble later.

What to do? Again echoes from the U.S., as Britons urge tax changes to encourage domestic investment and initiative, and a lot more exports.

Some hopeful signs. Latest estimates of British business' spending plans indicate confidence is still high. And the export drive moves ahead.

So far it is mainly a matter of exhortation. The prestigious Institute of Directors' "Export Action Now" campaign is selling exporting to smaller firms. The "Export Council for Europe" has fact-finding missions on the Continent; a Western Hemisphere council and a Middle East group are doing the same.

Helping out are government, some trade groups, the Federation of British Industries. Among FBI's schemes: Two fairs in Mexico, a visit of 80 Mexicans to the U.K., contacts in Yugoslavia.

The British recognize that more than propaganda is required. For example: Every exporting firm in the country recently got a letter from FBI and others warning that broken delivery dates "may be the main reason why our exports . . . are lagging."

Meanwhile the government has made export credit insurance more flexible, and has committed upwards of $500-million in "tied-loan" credits overseas. But British officials are reluctant to carry tied loans too far, even though the U.S. increasingly resorts to them. They worry that Britain and the U.S.A. will push each other into more such self-defensive measures, end up restricting trade rather than expanding it.

. . . and in Brazil

Like Mr. Kennedy, Janio Quadros is his country's youngest president. Like Mr. Kennedy, he delivered a grim, uncompromising assessment of his country's problems last month. Brazil's recent spectacular development "must now be paid for, bitterly, patiently," said Quadros.

He promised drastic belt-tightening for both business and labor, a "no-quarter" fight against corruption. But imposing austerity on a nation geared to inflation will require all of Quadros' dexterity and showmanship. Lying in wait if he makes a mis-step are the ultranationalists and their Communist allies defeated in the election, plus an increasingly restive labor force.

What is ahead? Despite some sharp shocks, Brazil will keep growing. And the U.S.A. will help out, as it always has, if the going gets too rough.

Communist calamity

The crop failures in China could have an important effect on world demand, despite the general glut. People with long famine-relief experience say the situation is such that "in the old days it would have meant certain death to 50-million Chinese."

That is unlikely today; Chinese society is better organized (to say the least). But do not underestimate the seriousness of the failures. And there is precious little cash or credit in Peking to finance the current overseas buying. Nor do the Soviets, with farm troubles themselves, have a surplus. (One possibility hinted in Washington: that the U.S.A. could, under certain circumstances, aid the Chinese.)

An American commodity analyst thinks the situation could—in time—lead to higher price levels. And a British observer adds that China's famine could profoundly alter the future world food lineup.

Optimism in oil

Petroleum has plenty of troubles too—but there has been a burst of optimism, for the moment at least. Frigid weather in the U.S. put smiles on the faces of oil men there (ditto investors who saw their oil shares mark a steady rise); Europe too had an upsurge. According to Petroleum Week, the Persian Gulf was almost sold out of product for a 30-day period in January and February.

Meanwhile, petroleum equipment makers estimate a $700-million market waiting outside the U.S., and optimists among them hope to win 28% of it for American firms. Exploration areas to watch, they say, are in Algeria, Libya, Spain and the Spanish Sahara, Egypt—with some hope for other African lands. Refineries too: Possibly $150-million will be spent this year on processing equipment. And the experts see "spectacular" opportunities in synthetic ammonia plants now planned in Japan, North Africa, Latin America.

A Visitor in India

Mr. Richard Fry, distinguished British journalist and a friend of INTERNATIONAL MANAGEMENT, *recently returned from India, which next month launches its third—and most ambitious—Five Year Plan. Here is his report:*

Slowly but surely the fruits of deliberate economic development are emerging in India. As a result of sharply increased investment, of which nearly a quarter was financed by foreign aid and loans, national output will have been raised 20% during the Second Plan ending this month. Half the gain has been absorbed by India's "explosive" population growth. But even so, output per capita has risen 2% per annum.

These round figures are accepted by most authorities. Indeed, the World Bank comments that they "almost certainly understate the progress made."

That judgment must be strongly approved by any recent visitor to India. My own view, after a third visit in six years, is that genuine industrial revolution has begun. Despite the fact that only four-fifths of the Second Plan investment was carried out, and large mistakes were made, a fairly sound foundation has been laid for accelerating progress from now on.

Whether this will come depends on the amount of foreign help India can get under the Third Plan: No less than a thousand million dollars a year will be needed from all sources (excluding U.S. food shipments), compared with little more than $400-million a year received during the Second Plan. The problem of getting such huge sums for the next stage gives the Indian situation an air of breathless uncertainty, of waiting for destiny to speak. [Destiny may have something to say next month when the World Bank's "aid-to-India" creditors' club meets in Washington. Meanwhile, there were reports last month that another Aid-India Club might be forming in East Europe (See page 15.)—EDITOR]

Certainly the process now under way in India will be difficult to slow down without disastrous results. For what has happened is an explosion of private enterprise. This can be seen only partly in official statistics—in the Second Plan, net investment in the public sector is estimated to have fallen 10% short of target, but private rose 40% above the target. Broadly, the public projects are in: coal, steel, railroads, power, irrigation, heavy industry. The rest is left to private initiative under strict government licensing enforced mainly by import controls.

But official figures do not tell the whole story, for they exclude industrial units employing less than 50 people. It is small scale business that is most dynamic: hundreds of thousands of little workshops, making a great variety of consumer goods, as well as components for large industrial plants.

If, under the Third Plan, you allow for a continuing underestimate of small business growth, it seems fair to assume that the Plan looks to private enterprise for some 40% of the net investment of $21,400-million.

The attitude of the Indian government toward private enterprise is slowly and reluctantly changing. True, the "Socialist pattern of society" remains the verbal platform, and a Socialist trend persists in the Third as much as in the Second Plan—if only in the emphasis on large projects like more steel mills, power plants, heavy machinery, which under Indian conditions are bound to be undertaken by government. The state clings to these basic industries despite failures in management by government appointees.

But some flexibility has lately appeared. For instance, private coal mines can now expand into adjoining fields which until now were reserved to the state.

There is the case of oil. Indians have long resented the grip of major companies and Soviet offers of oil and exploration help were greeted with emotional relief. If Russian drillings in Western India should be fully successful New Delhi will turn steadily against the companies and reserve future expansion for the state.

Yet in much manufacturing, private enterprise—Indian and foreign—is given increasing scope.

This is born out by a striking change in the sentiment of Indian businessmen towards government. There is still great dissatisfaction, but the bitter hostility of a few years ago has vanished. The reason is that private firms who succeed in getting a license get almost complete protection, and they can make very good profits.

A new generation of entrepreneurs is emerging. Former bankers, merchants, Brahmins, army officers turn to manufacturing. And at the same time any industrial stock offer is promptly oversubscribed.

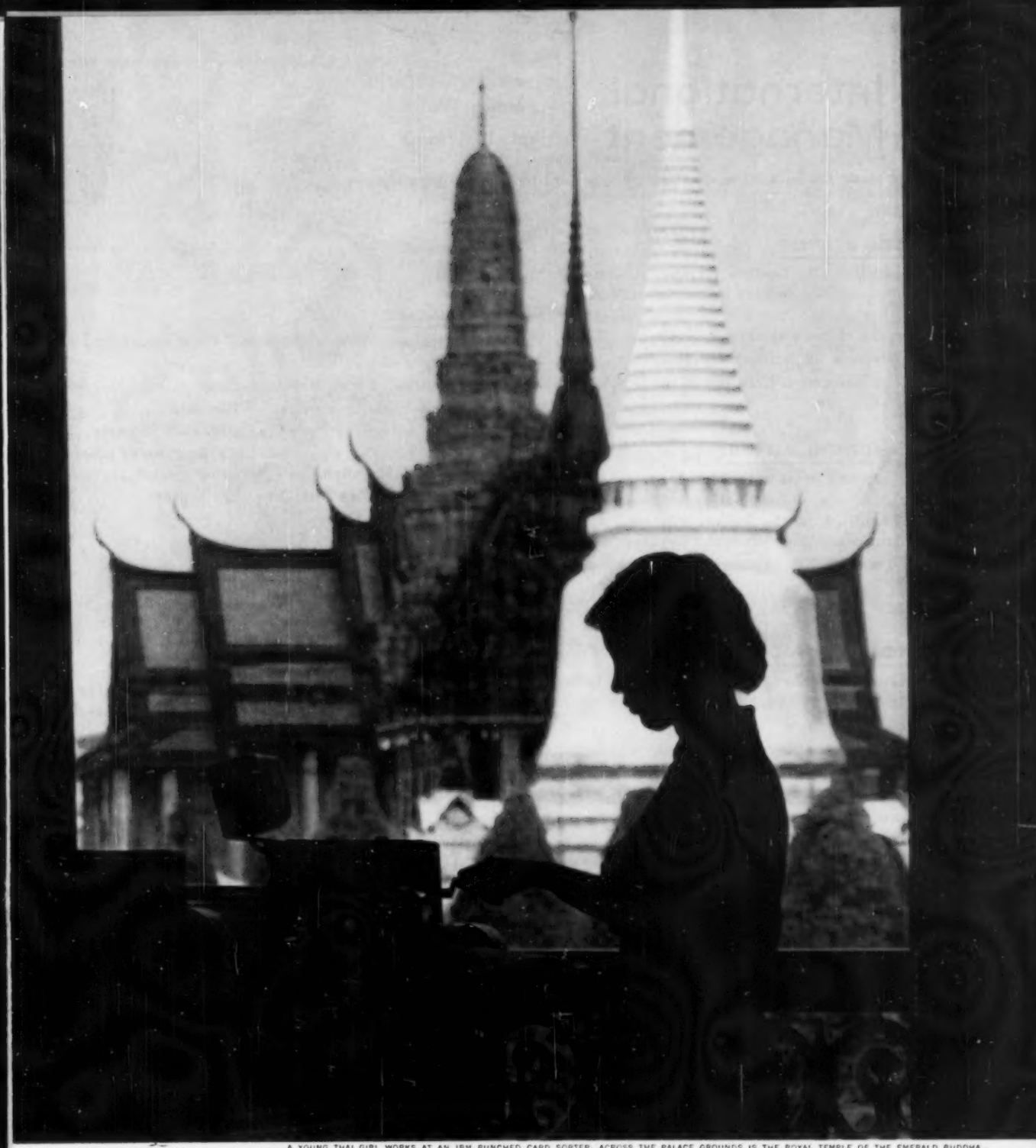
Prejudice against foreign participation is also slowly weakening. While 100% foreign ownership is barred, majorities of up to two-thirds in joint enterprises are now being allowed.

One can see the beginnings of a professional management class. These men are coming largely from the railroads, postal or army services, plus many ex-graduates of Western or Indian universities. The quality of some of the new men is encouraging. But the numbers are painfully short of needs.

In fact the shortage of good higher management is the largest single doubt hanging over the industrialization projects of the Third Plan. The Indians are in the process of realizing two serious errors. One is that they grossly underrated the technical training requirements that go with so many large modern plants. The second is that the earlier nationalist hope of reducing the number of foreign technicians was a fantasy.

To sum up: In the face of almost overwhelming problems, India is becoming more stable and the process of development is taking on a reasonably sound pattern. The outlook for further progress is hopeful—provided enough foreign aid comes through.

Volume 16 Number 3 of INTERNATIONAL MANAGEMENT, published monthly by McGraw-Hill International, 330 West 42nd Street, New York 36, N. Y., U.S.A. Subscriptions solicited only from management executives in business and industry. For subscription prices see page 6. Publication office: 99-129 North Broadway, Albany 1, New York. Second class postage paid at Albany, New York. INTERNATIONAL MANAGEMENT and AMERICAN LETTER copyright© 1961.



A YOUNG THAI GIRL WORKS AT AN IBM PUNCHED CARD SORTER. ACROSS THE PALACE GROUNDS IS THE ROYAL TEMPLE OF THE EMERALD BUDDHA.

"My people shall walk in the shade"

The man who said this was Chulalongkorn—Rama V in the dynasty of Thai Kings. In the mid-19th century, before his reign, rice farmers trudged to Bangkok markets along roads which only reflected the scorching heat of the tropic sun. Chulalongkorn, who believed progress meant little things—like a shady walk—as well as great public works, ordered trees planted beside the barren roads.

He did great things, too. An admirer of Abraham Lincoln, he abolished slavery. He also set up Thailand's postal system.

Chulalongkorn would be proud of Thailand today. Bangkok, which began as a cluster of river houses atop pontoons and bamboo stilts, is now a startlingly modern city. And the trees are still there.

At IBM, we like to think Chulalongkorn would also be proud of the modern data processing system used in studies of the national budget. He might relish the fact that Thailand, an early user of data processing, has had IBM machines for over 30 years. Chulalongkorn always liked to be among the first. So do we.

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International Management

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INTERNATIONAL MANAGEMENT (formerly McGraw-Hill DIGEST) Overseas and Latin American Editions is published monthly by McGraw-Hill International, James H. McGraw (1860-1948) Founder. Circulation in all countries of the world.

Executive, editorial, advertising and circulation office: 330 West 42nd Street, New York 36, N. Y., U. S. A. Donald C. McGraw, Chairman of the Board; Nelson L. Bond, President; Joseph A. Gerardi, Hugh J. Kelly, Harry L. Waddell, Executive Vice Presidents; L. Keith Goodrich, Vice-President and Treasurer; John J. Cooke, Secretary; John H. Callaham, Vice President and Editorial Director; Joseph H. Allen, Vice-President and Director of Advertising Sales; A. R. Venezian, Vice President and Circulation Coordinator.

Publication Office 99-129 North Broadway, Albany 1, N. Y., U. S. A. See panel below for directions regarding subscriptions or change of address.

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Something to Think About

THE PROBLEM of economic development in the poorer nations has captured the urgent attention of the world. It has flushed from the academic reading rooms hundreds of experts in the theory of expanded output and rising living standards. A growing corps of consultants stands ready to conduct surveys and offer advice. Development banks and other such institutions are multiplying, and the distinguished President of the World Bank has even delineated a "development diplomacy" to complement development economics.* Businessmen too: The Congress of the International Chamber of Commerce, scheduled for Copenhagen in May, will devote its week of meetings to the role of private enterprise in economic development.

Too much of what is being said merely rehearses yesterday's solutions, designed for a world that—if it ever existed—existed several generations ago. But important ideas, relevant ideas, are also bubbling up through the ferment. And we were very impressed by the bold program outlined in the current issue of the influential American quarterly *Foreign Affairs* under the title "New Economic Policies for the West."

The author is Dr. Alfred C. Neal, President of the Committee for Economic Development, perhaps the U.S.A.'s most enlightened and progressive forum of business opinion.

The key to Dr. Neal's argument is that the best policies for governing economic relations among the industrial countries may not be suited to the underdeveloped lands. Within the developed nations, the "traditional principles" must be maintained and strengthened: low tariffs, non-discriminatory, most-favored-nation trade, convertibility, development mainly through free flow of private investment.

But Neal insists that the underdeveloped countries cannot be forced into the traditional mold of liberal foreign economic policy. The hallowed principles are not popular in most such nations; they are not currently practiced nor are they likely to be soon. Why not recognize this? Once they recognize this, Neal declares that "the most important privilege which the industrialized nations of the free world can offer is *one-way free trade*" (italics are Dr. Neal's).

This means permitting the developing countries to encourage their growth with tariffs yet allowing them free trade entry into the industrialized markets. They could earn as much foreign exchange for their development as completely free markets permitted.

But there is more to it. Neal suggests making one-way free trade conditional upon the underdeveloped nations getting together to help themselves. By grouping together and practicing free trade among themselves, these nations would create markets large enough to support development on an economic scale—while maintaining a non-discriminatory external tariff in the interests of their industrial growth. One-way free trade might not be offered to single countries at all (save for a large nation such as Brazil or India). The ultimate aim, of course, is to slowly bring these countries into full membership in an open, low-tariff system of the entire free world.

This is the nub of Neal's prescription. He also recommends that the industrial nations fully accept the idea of multilateral assistance and work hard at coordinating their efforts; that they realize that mixed systems of public and private investment are preferred in developing countries; that buffer stock schemes for troubled commodities may be necessary, along with great changes in some industrial nations' domestic price support programs. "It should be noted," Neal says dryly, "that most of the changes suggested here call for the modification or elimination of government programs which have been instituted for the particular benefit of private pressure groups."

Dr. Neal's ideas may be anathema to some of his CED colleagues, and to many businessmen throughout the world. They may also be utopian. But Neal is not being a soft-headed visionary. He is making a plea —that the urgent problems of the underdeveloped peoples of the world call for drastic changes in businessmen's thinking, changes that reflect "the facts of today's world rather than the economic precepts of the nineteenth century."

International Management

EFFECTIVE this month, we have dropped the word "Digest" from the name of this publication. INTERNATIONAL MANAGEMENT seems to us a more flexible and descriptive title, and better reflects the growth of this publication and of its audience. More than 33,000 executives throughout the world are now regular subscribers, and together with their colleagues who read each issue they constitute the international management community that we editors are pledged to serve.

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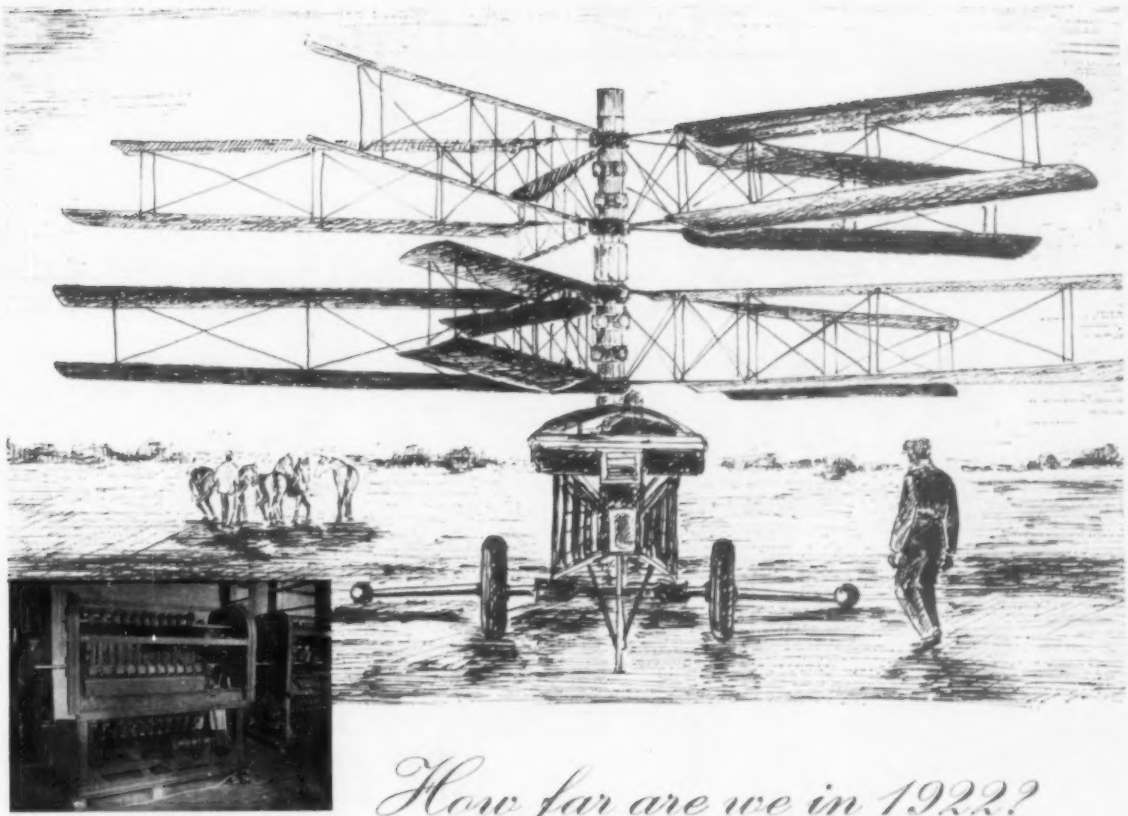
* Eugene Black, *The Diplomacy of Economic Development*, Harvard University Press, Cambridge, 1960.



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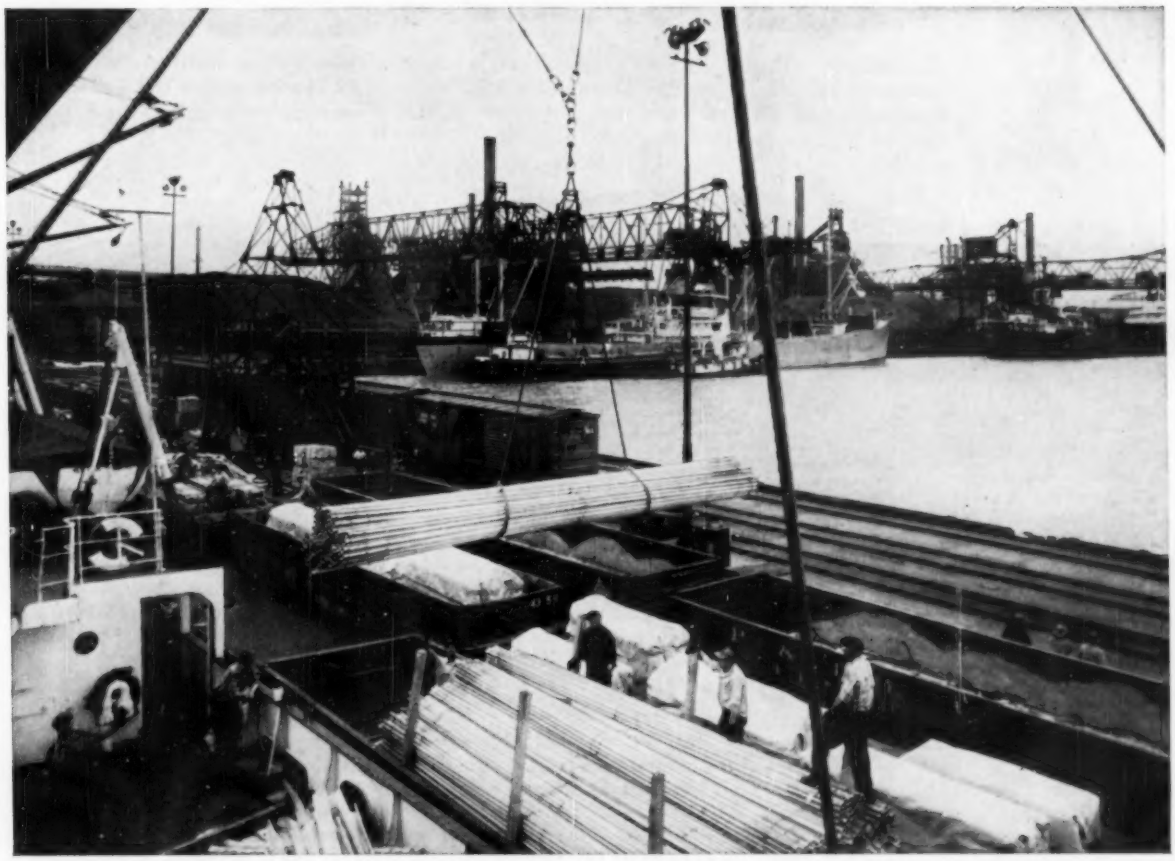

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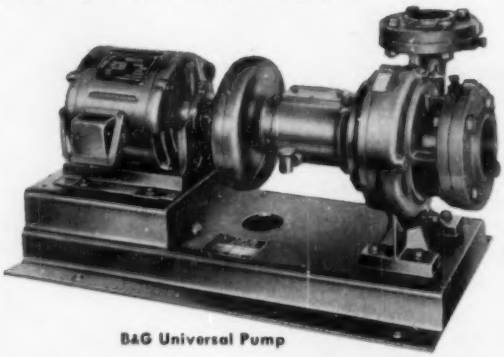

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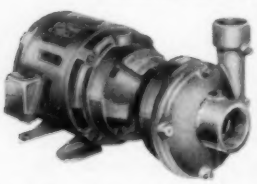

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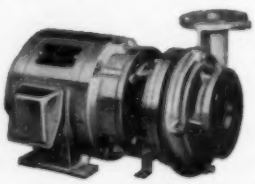

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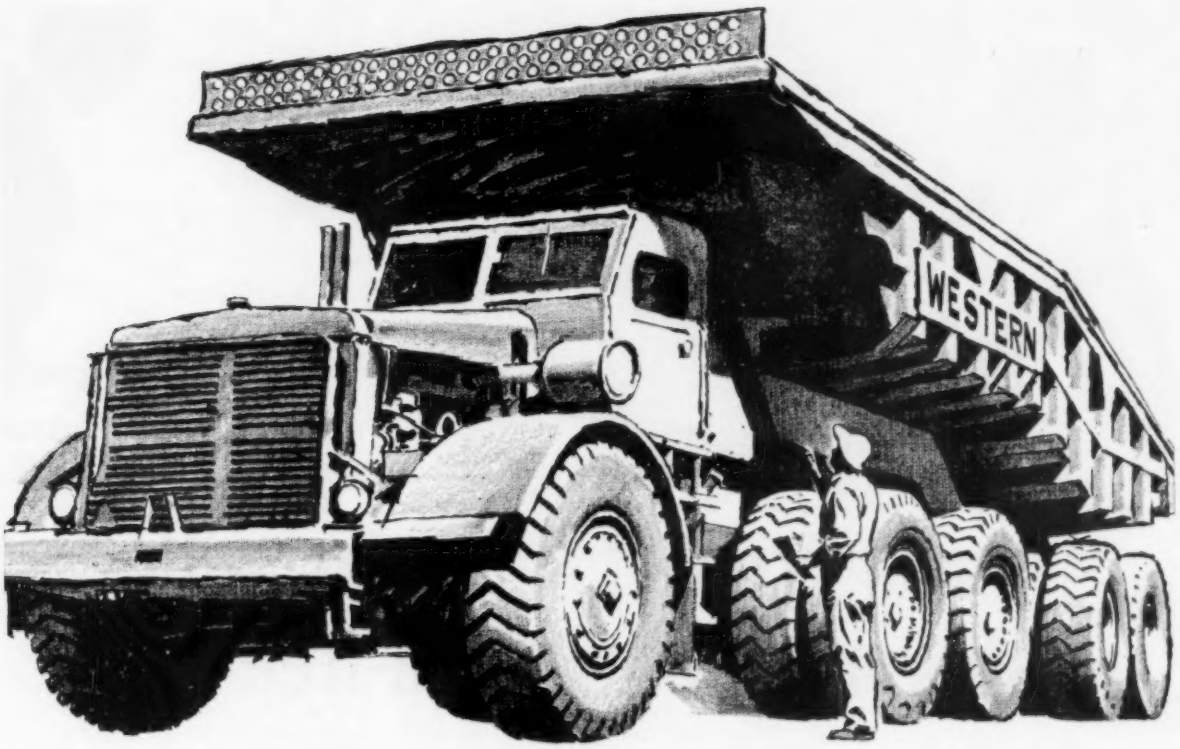

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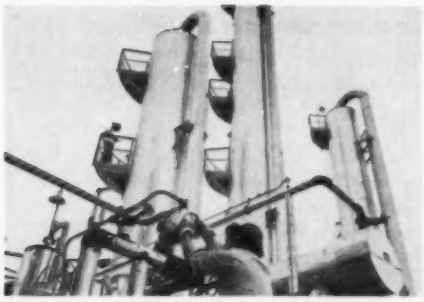

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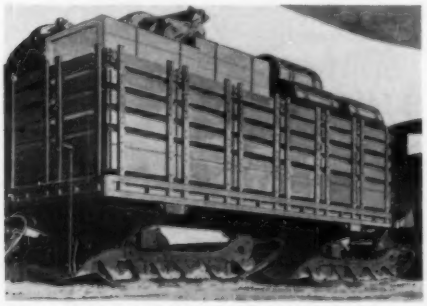

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The Comecon association is trying to mold a Communist "common market" by promoting more efficiency and specialization. You can see how it could become a more important factor in world business when you look at the . . .

Big Plans in Eastern Europe

PREOCCUPIED with the problems resulting from the two trading groups in Western Europe, businessmen sometimes forget that another trading association is being welded together on the same continent. Like EEC and EFTA, it carries important implications for world commerce.

The association is the Council of Mutual Economic Assistance, or "Comecon" for short. Full members are the U.S.S.R. and its seven East European satellites—East Germany, Poland, Czechoslovakia, Hungary, Rumania, Bulgaria, and Albania. And China, North Korea, and North Vietnam stand by as "observers."

• **Superiority**—Comecon is significant. Perhaps even more so now that the high chieftains of Communism have reaffirmed their belief that economic competition is the favored route to world conquest. Already, the Russians are saying that they will complete their Seven Year Plan goals a year ahead of time, in 1964. Then, proclaims the official guidebook, " . . . The absolute economic superiority of the world Socialist system will be ensured."

This is ambitious. Whether it can be achieved depends partly on the progress in Eastern Europe. For the Kremlin clearly counts on greatly expanded production among its Comecon allies.

Look at some of the plans just released: Hungary's 1961 target calls for an 8% rise in industrial production, Rumania's, 13%. And the Czechs are working toward a 56% increase within five years.

Moscow counts on Comecon allies for trade leverage. Note the new plan to help Cuba, whereby Comecon nations will together buy Cuban sugar and allow Cubans to shop for industrial goods in all the East European nations. Some see this as the first fully multilateral agreement involving the entire Communist bloc, and predict there will be more such deals to come. There is already talk of a multilateral "Aid-India" club (page 4).

I. Meet Comecon

First the size. Add to the Soviet Union's 215-million people the 96-millions of the Comecon seven, and the total is greater than EEC and EFTA combined. In geographical terms, of course, Comecon bulks much larger. And the area's industrial output has been increasing at an impressive—if erratic—rate, a good deal faster than that of Western Europe (though the Easterners start from a much smaller industrial base).

Today, Comecon disposes some 50% of the world's coal production, 31% of its steel, 20% of its electric power. By 1965, the Communists promise even larger shares of world output.

• **Enigma**—Like most Communist institutions, Comecon merits the "mystery wrapped in an enigma" description Sir Winston Churchill applied to the U.S.S.R., not only because of secrecy, but because Comecon is still in the process of confused evolution.

It was created in 1949, at a time when some satellite nations were sorely tempted by the U.S. offer to include them in the Marshall Plan. In theory Comecon was to do for East Europe what the Marshall Plan and the OEEC did in the West.

Soviet statistics show a surplus of exports to East Europe during those early years, and Moscow declared that surplus "assistance." But in fact price manipulation created the surplus, and Comecon's main purpose was to make easier Russian milking of the satellite economies.

There was not much talk of "integration". Each country was busily force-feeding its industrial machine along Stalinist lines, emphasizing national self-sufficiency. But with the death of Stalin profound changes came.

II. Division of Labor

The seventh session of Comecon, in May, 1956, brought forth the idea of coordination of production and division of labor. And although it was interrupted by the political crisis in Poland and the Hungarian revolution, Comecon proceeded along the lines laid down in 1956. The governing body consists of a Russian chief, and deputies from each of the seven allies. Main policy lines are set at annual meetings; basic work is carried out by a permanent secretariat in Moscow plus 13 functional commissions, some in Moscow, some elsewhere. The chemical group, for instance, is in Berlin, because East Germany

Within Comecon...

...Production of these products...	...to be concentrated in these countries						
	USSR*	East Germany	Czecho-slovakia	Hungary	Bulgaria	Rumania	Poland
Petroleum equipment	■					■	
Chemical processing equipment		■	■				
Diesel engines		■	■	■			
Electric motors		■	■		■	■	
Sea-going vessels	■						■
Rolling stock		■	■	■			■
Trucks	■	■	■	■			
Cars	■	■	■				■
Farm machinery	■		■	■	■		
Copper smelting			■		■		
Fine rolling mills		■					■
Aluminum sheet			■	■			

* The USSR enjoys the status of a "self-sufficient economy" within the Comecon family. Items checked are among those which the Soviets have agreed to supply under the "division of labor" program.

has the most developed chemical industry.

• **Monoculture**—There was a difference of opinion among outsiders on how far the "division of labor" concept would be carried. Some spoke of "monocultures", maintaining that Comecon aimed for highly-specialized economies complementing each other, and tightly bound to the unspecialized U.S.S.R. Others argued that the goal is not much more than the kind of rationalization that is expected to come within Western European trading groups.

The latter view now seems closer to the truth. Apparently each Comecon member may continue lines of production required by its home market—provided that an exchange of technology, supplies, and tools encourages the best use of bloc resources.

The chart above suggests the areas of specialization. For example: Hungary gets electric power from Poland and Czechoslovakia in exchange for aluminum bars. Czechs and East Germans get pulp and cellulose from Rumania in exchange for processing equipment. Bulgaria starts to produce agricultural machinery (from Soviet blueprints) and electric motors, freeing Czech and German skills and precision equipment for work on more complex items.

There are longer-range, intra-bloc projects as well, like the 4,000-km. petroleum pipeline to link Kuibychev in the Russian Volga district with Poland and East Germany, with another segment going into Czechoslovakia and Hungary. Other projects include an electrical grid system, a semi-automatic phone network.

III. Family Trouble

There are plenty of headaches for Comecon, things that plague all planners, such as supply "bottlenecks", shortages of labor, bad management, and a bureaucracy which resists change.

But there are problems specific to Comecon, not the least of which is the apparent confusion about its function and goals.

Outsiders detect a good deal of bickering and resistance. Nationalism cannot be completely sublimated, and satellites often balk at subordinating domestic interests to an overall plan—especially when that plan is suspected of being designed primarily to build up the U.S.S.R. itself. Note that while current, short-term planning is done at the national level, long-range planning seems to be a Comecon responsibility.

• **Suggestion**—As a concession to nationalist sentiment, Comecon is supposed only to make suggestions, not give orders. This must complicate planning, even though in practice it would be hard for a satellite nation to hold out against a "suggestion" that Moscow favored strongly enough. To reinforce its recommendation, the Soviets have not only Communist Party discipline, but great skill in the game of granting credits.

Planning is also complicated by the tangle of bilateral agreements that govern East-bloc trading. Bilateralism is deeply rooted in Marxist concepts of barter, and it is difficult to impose multilateral integration on top of it. Another result of Marxist precepts is the lack of any sort of accounting system on the Western model. Without logical costing, there is no effective way of comparing member nations' prospects.

But there are signs that these anomalies are being attacked. The entire bloc is attempting to set up accounting systems that will require each factory to show a profit—or loss. And the devaluation of the ruble (IM—Jan, p3), bringing its external value into some logical relation to internal purchasing power, may supply a new basis for intra-bloc trading. Changes in the valuation of other East bloc currencies are expected. (In January, the relative value of other Communist currencies in terms of rubles were sharply altered—though supposedly for "non-commercial" payments only.)

IV. External Trade

Comecon does not yet appear to have taken over the role of directing trade with countries outside the bloc. Indeed, there is evidence of some competition among Comecon members in regular commercial trade with Western nations. But clearly there is more coordination in "cold-war" aspects of trading, particularly with less-developed countries.

Comecon will undoubtedly come more to the fore as external trade increases. Together, the Comecon countries do no more than 12% to 15% of total world trade volume, and about two thirds of that is within the bloc—compared to 1949, when Comecon members did only 21% to 34% of their trade with each other.

• **Rise**—But despite the emphasis on intra-bloc trade, the absolute level of trade with other

nations is rising. Commerce with Western Europe doubled between 1953 and 1958; in 1959, exports to EEC nations, for example, rose 14%, imports 11%, with further increases last year.

Sales outside the bloc fall into two general categories: straight business transactions to gain currency for the purchase of needed supplies, and barter deals with underdeveloped countries.

There is a marked tendency among Comecon nations to buy on a spot, cash basis urgently-needed goods—aluminum, for example, or special production tools. And in the more highly-industrialized markets, Comecon will be compelled more and more to stress quality. Most sales have been made only on price considerations ("Comrades," said an East German Comecon official, "you can be sure that we will sell . . . at *some* price!").

In less-developed markets, Comecon finds ready sales usually only when long-term (12 years), low-interest (1½% to 3%) credits are used as bait. Then, of course, there are the more politically-oriented barter deals involving commodities like sugar, hides, or cotton against Comecon products.

• **Outlook**—Few observers expect a major increase in either category over the next few years—despite the bursts of publicity that attend the signing of a new Communist trade pact. It will be some time before Comecon will have important surpluses (petroleum may be an exception) over domestic demand—particularly as Comecon nations find they must make more production available to raise living standards at home. Indeed, some observers expect East-West trade to rise more slowly after a few years as Comecon needs for Western equipment diminish and as—or rather if—Comecon planning is successful in providing greater self-sufficiency.

And even in the peculiar economics of Communism, there is a limit to the amount of Cuban sugar, Brazilian coffee, Egyptian cotton that Comecon can absorb. And when they unload excesses on other markets at low prices (as has happened in several cases), the political repercussions are embarrassing. ●

Auto Unions Join Forces

THE CLAMOR of some U.S. trade unions for protection against imports (see page 1) is by no means unanimous. To a large extent, it represents the view of the smaller unions, and of individual locals of the larger organizations. It is not the position of Walter Reuther, head of the powerful United Auto Workers (UAW) and a key policy-maker for American labor.

Reuther recently warned U.S. unions against "protectionist" sentiment that endangers friendships abroad. Instead of this, he urged American labor to help "our brothers abroad" organize for higher wages and better working conditions.

Observers believe that Reuther's ideas are aimed less at making UAW a world organization than at coordinating the activities of the world's auto unions for common objectives. Nor is this an idle dream. The program is solidly under way, and it could be a prototype for global cooperation in other industries.

• **Global Effort**—About 2.5-million auto workers in 20 or more countries today are effectively organized under one of the 21 "secretariats" of the all-embracing International Confederation of Free Trade Unions (IM—Oct, '59). This secretariat is the International Metalworking Federation (IMF), which covers the automotive, steel, shipbuilding, electrical, and machinery industries. Significantly, about half of the IMF's 8-million members belong to five giant U.S. unions, including Reuther's UAW.

In a report to the UAW, Reuther outlined IMF's importance:

—In France, the world group was "a decisive factor" in securing contracts paralleling those in the U.S. calling for cost-of-living wage increments, and unemployment and retirement benefits.

—It helped adjudicate disputes between auto workers and the Ford Motor Co. in Denmark, Malaya, and Belgium.

—It facilitated organization drives in India, Japan, Greece, and Nigeria.

All indications are that Reuther's activity on behalf of IMF will be increased. Walter Reuther's brother Victor last November spoke bluntly on the subject before auto unionists from 11 countries: He warned that low-wage competition was not a problem of U.S. labor alone, but that it could seriously endanger jobs in other industrialized countries.

UAW's Walter Reuther

• **Code of Standards**—The goal of IMF—and other world unions—is a legislated code of standards, with penalties against the exports of nations violating the standards. The basis for such a code was incorporated into an international agreement drafted in Havana in 1948, but the U.S. and others failed to ratify the agreement.

Reuther's overall plan is to protect standards that exist now in advanced areas, while attempting to raise the levels in less-developed, low-wage countries. He and his associates are convinced that many American companies have invested abroad to escape the higher labor standards won by U.S. unions.

UAW officials are also concerned about non-U.S. auto companies expanding beyond their national boundaries—for example the plans of Japan's Nissan Motor Co. Ltd. for auto assembly in Mexico.

• **Continuing Programs** — Reuther's thinking is recognizable in the three programs for action spelled out at the last IMF conference in Paris: (1) close the gap between world auto production capacity and demand; (2) harmonize as far as possible the auto wages in various parts of the world; (3) introduce a greater measure of social responsibility into production and investment decisions. (*Business Week, Jan 28, p 53*)

Business of Bullfighting

Like a theatrical producer, impresario Don Jose Rodriguez (left) paces arena before fight.

AS THE LE MANS TRACK is to motor racing, so the Plaza Mexico is to bullfighting in the Western Hemisphere. And this season's opening at the beginning of 1961 tested more than the courage of matador and bull. It also tested the resilience of what in Mexico, as in a number of Spanish-speaking nations, is big business. For Mexico's $20-million-a-year enterprise has been caught up in a recession the last two or three years.

• **Squabble**—Partly, the trouble arose out of a squabble between Mexican and Spanish matadors. Until three years ago, they used to have a regular interchange; then the unions in both countries fell out, sharply lowering the competitive heat and the public's interest.

Meantime the Plaza Mexico had its own troubles. It ran short of funds, closed down in late 1957, and reopened for only a short season last year.

Now the recession is probably over. There is still no sure Spanish-Mexican agreement, but other things have put new life into the ancient spectacle: Chiefly, the growth of television has bred thousands of new aficionados, and the matadors, searching all over for work, have brought a higher grade of bullfighting to the provinces. And, of course, the Yankee tourists.

This is good news for more than the matadors. Many others share in the big business of bullfighting: (1) the owners of the rings; (2) the impresarios, who stage the fight; (3) the matadors' cuadrillas, or teams of picadors and banderilleros; (4) the breeders of fighting bulls; (5) the hawkers of beer and tamales who hold concessions in the bullrings, and (6) the ticket peddlers outside the gate each Sunday.

• **Complex**—The man behind the complex business of a bullfight is the impresario, or promoter (picture). He has to bring together the bullring, the bulls, the matadors and their cuadrillas—and the crowd.

First he must find his bullring and book it for the proper time—winter and spring for the top contests, summer and fall for the novilladas, or apprentices' bullfights. Then he selects his corrida of fighting bulls. The matadors have to be signed up, with their teams. How much they get depends on the record and crowd appeal of the matador, also on the bargaining skill of matador and promoter. Lastly comes the hiring of "extras", from concessionaires to doctors.

There is no telling how much the plaza owners and impresarios make out of all this. But there are estimates that profits from a first-class bullfight at the Tijuana plaza run as high as $16,000.

• **Hard Climb**—The matador gets a good deal more than most of the others. As a novillero he fights only small bulls, and he must dispose of ten of them before he can register with the Mexican Matadors' Union. The next step depends on a mixture of skill, popularity, luck, and ambition. There are some 250 novilleros registered with the union, but only two are likely to graduate this season.

Big money awaits those who make the grade. Juan Silveti, one of the two top bullfighters in Mexico, has been getting as much as $4,000 a fight at Tijuana, $8,000 in the Plaza Mexico. But even in the capital, where he has no transportation costs and the impresario pays the cuadrilla's wages, items like "publicity" and tailor's bills eat into more than half his income.

• **Ganaderos**—The breeders can do well. Ganaderos may gross $30,000 a year, with a profit of about $18,000. Some 4,000 bulls a year are sold by the 97 members of the National Ranchers' Association, and the take the ranchers split is about $3-million.

Years of investment and careful management go into the breeding of "bravos." If the rancher can supply the Plaza Mexico with three sets of bulls of the proper quality for the novilladas, he takes his first step toward a class B rating. To win this he must send a corrida of big bulls to a major fight, and they must be judged of the right size and temperament. Then to climb to class A he has to maintain this quality over several years. Only 25 of the 97 member ranches are rated top-class by the Association. (*Business Week, Jan* 21, *p* 130)

Tax Reform

. . . is likely in the U. S. A., and international aspects are playing a major role.

AMERICANS usually just talk about tax laws. But now there is a difference: President Kennedy's government is trying to change them.

For the first time, the U. S. A.'s international position plays a major role in the drive for tax reform. Businessmen and government officials agree that the international payments deficit, the rising tempo of foreign competition, the "economic challenges" flung out by Mr. Khrushchev provide strong arguments for change.

• **Depreciation**—Comments like "European and Japanese plants are more modern than ours" are used to argue for liberalization of depreciation allowances. The faster a businessman can recover his investment in new equipment through tax deductions, so the argument runs, the more he will spend for increased efficiency. Almost all of the U. S. A.'s principal competitor nations allow faster depreciation, and their growth rate shows it. So businessmen will get some tax stimulant for domestic investment.

The trend is in the opposite direction for foreign investment. Secretary of the Treasury Dillon is already on record suggesting that tax deferral privileges allowed on profits by overseas subsidiaries of U. S. companies "need looking into;" no one would be very surprised if the "tax haven" operations of Americans abroad have to be modified. But there is still disagreement on how much effect, if any, tax laws have on the balance of payments, and drastic changes are unlikely.

Finally, the issue of basic reform: U. S. tax rates are among the very highest in the world. A sweeping overhaul—aimed at eliminating or reducing special tax allowances and "loopholes" so that the rate structure as a whole can be lowered—may be on the horizon. (*For a look at comparative tax rates in leading industrial nations, see "Business at a Glance" on another page in this issue.*)

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● MANAGEMENT METHODS

Keep an Eye on "Flexible"

As ACCOUNTANTS gain prestige around the world, they acquire great influence in the day-to-day decisions of international business and finance. And management must pay careful attention to the debates that go on inside this old and honorable profession.

Such a debate is now going on in the U. S. over "flexible" accounting.

In reporting their financial results, most managers have a wide choice of accounting principles. As the two income statements below illustrate, accounting procedures can make a drastic difference on a company's earnings report.

Both reports are prepared according to "sound accounting principles" as practiced in North America. Neither company would have any trouble getting the signature of an independent auditing firm.

Without such accounting flexibility, management would have less leeway in conducting its business affairs. The controversies of accounting, for the most part, involve

Accounting at Alpha and Beta

The two hypothetical companies below make the same product. Last year, they had the same volume of business and had completely equal operations in every respect, including executive compensation, pension plans, capital gains, etc. But because of different accounting principles, their Profit and Loss Statements could look like this:

	Alpha Co.	Beta Co.
Sales	$10,000,000	$10,000,000
Costs and Expenses		
Cost of goods	$6,000,000	$6,000,000
Selling costs	1,500,000	1,500,000
[1]LIFO inventory reserve	400,000	.....
[2]Depreciation	400,000	300,000
[3]Research costs	100,000	20,000
[4]Pension costs	200,000	50,000
Executive Compensation		
Base salaries	200,000	200,000
[5]Bonuses	200,000	.....
Total costs and expenses	$9,000,000	$8,070,000
Profit before income taxes	$1,000,000	$1,930,000
Income taxes	520,000	1,004,000
Operating Profit	$480,000	$926,000
[6]Capital gain (after taxes)	.....	150,000
Net profit reported	$480,000	$1,076,000
Per share (600,000 shares)	$ .80	$1.79

1. Alpha uses a last-in-first-out (LIFO) method of evaluating inventory; Beta uses first-in-first-out (FIFO) and does not need a $400,000 inventory reserve.
2. Alpha uses an accelerated method for depreciating equipment, which calls for a $100,000 charge against income; Beta voids this charge by straight-line depreciation. (Price-level depreciation, which allows adjustments for price changes, is an accounting procedure widely used around the world, but it is not yet accepted practice in the U.S.A.)
3. Alpha is writing off its research costs immediately; Beta is taking five years.
4. Alpha maintains a reserve equal to the current cost of pensions, plus amortization of the liability for past service; Beta's fund amounts to only its minimum legal requirement, which is the discounted value of employee's present interest in the pension plan.
5. Instead of paying a cash bonus, Beta granted stock options. These are not charged to income, but may become a drag on income.
6. Alpha credited its capital gains, after taxes, to earned surplus, which is reported on the balance sheet rather than the earnings statement. Beta treated its capital gains as income.

questions of pension funds, depreciation and amortization policy, and the evaluation of assets. Flexible principles give management the choice between conservative and less conservative alternatives.

Recently, U. S. management has become aware of a growing criticism of flexible accounting. Management can only listen, for the debate is confined to the accounting profession. To understand the debate, and why it is important, it is necessary to understand the function of the accountant, and his changing role.

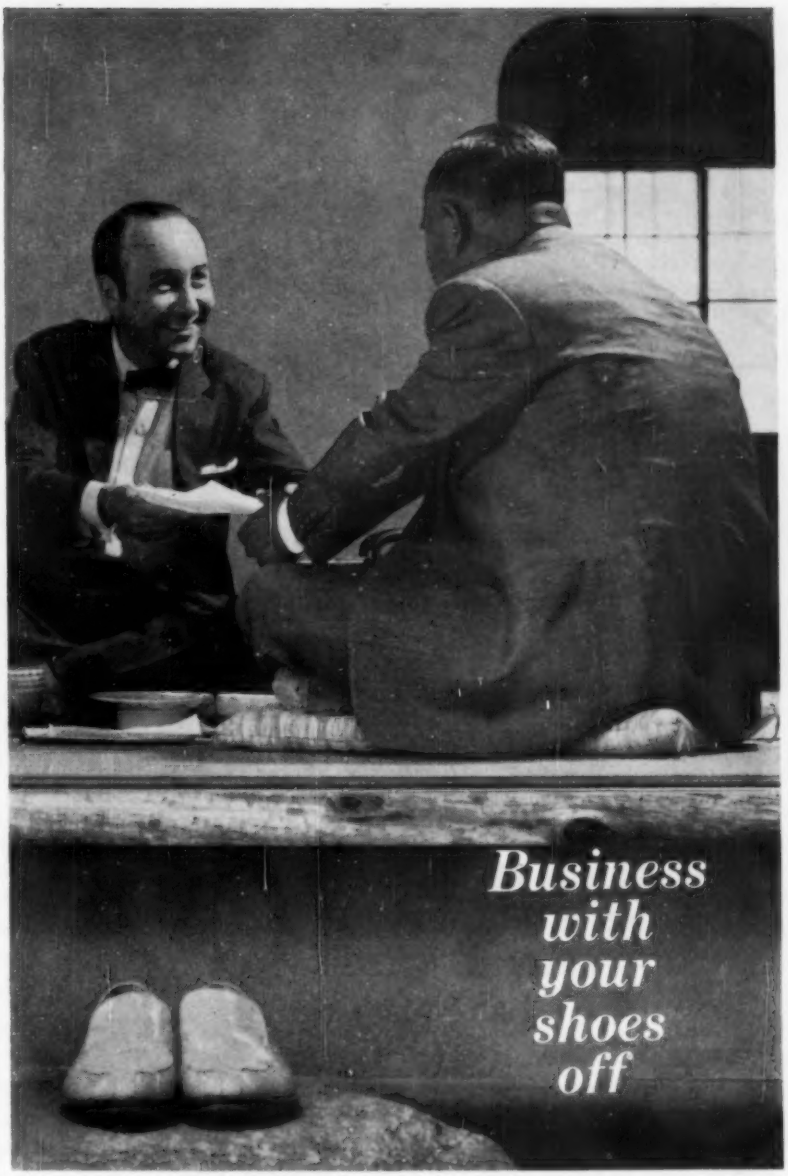
• **The Accountant**—The U.S.A.'s adequate-disclosure laws require companies with a stock exchange listing to publish audited financial reports. These laws are designed to protect the investing public; They give a great deal of power to the Certified Public Accountant. Many companies now adopt disclosure as a sound business practice.

The public accountant is a British-nurtured institution. At one time, Chartered Accountants were an important British "export," and accountancy got its start in dozens of nations, including the United States, through accounting firms established by Britons. As an independent operator, with signature powers established as a public mandate, the Chartered Accountant quickly established a professional reputation for integrity.

A different system, called the "commissar system," was established by the Napoleonic Code. Commissars are independent accountants, with signature powers, who are attached to individual companies. Professional standards were much slower to develop under this system.

• **His Function**—The public accountant's function, as an auditor, is to put his "certificate" on a company's books. He is not, however, directly responsible for the financial report. His duty is to examine the figures and satisfy himself that accounting procedures are in accord with established practice.

The outside accountant-auditor has also become management's chief



Tradition makes the teahouse Japan's business conference room. Seated on the straw mat floor, business becomes less urgent, talk more pleasant.

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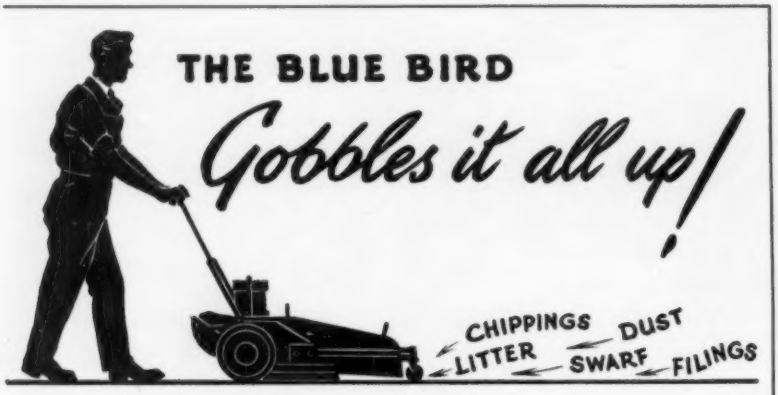
adviser on how to prepare financial reports. Indeed, accounting firms invented most of the procedures and techniques in use today. Managements of large corporations are in almost daily contact with their accounting firms, and they expect personal service and guidance. Tax advice has become part of the accountant's service, which may include advice on mergers and acquisitions, and other management problems.

Over the years, most U.S. accounting firms have become strong advocates of giving management maximum flexibility in handling their business affairs. On some questions, they may feel compelled to indicate their displeasure by the mechanism of their statement. And to an accountant, this usually meets the requirements of adequate disclosure. But if there is a showdown, the ultimate power is on management's side. The company can usually find another accounting firm that will reassess its arguments—if the disagreement is in a controversial area of accounting.



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• **The Controversy** — Some accountants now say that accounting principles have become too flexible for the good of the profession. They fear that flexible accounting gives management too much power; they fear that the independence of the accountant may be threatened. Furthermore, they say that if accountants do not establish clearer standards of practice, the profession may lose its right to define principles.

Pressure for uniform procedures also comes from accountants and others who say that flexible accounting is confusing, even misleading, to the general public. The income statements of Alpha Co. and Beta Co. (see preceding page) were prepared by a prominent practitioner to demonstrate a need for uniform accounting principles.

The question of uniform standards is now in the hands of the Accounting Principles Board of the American Institute of Certified Public Accountants. In management's favor is the fact that eight big accounting firms, known as the "Big Eight," dominate the U.S. accounting profession. Of the eight, seven favor flexible accounting.

• **Professional Prestige** — These big accounting firms have the confidence of the financial community that they can work with management, and carry out their delicate, dual role, without losing their independence. Consider that these eight firms are the accountants for 80% of the companies listed on the New York Exchange.

Internationally, some of these firms are almost as well known as in the United States: Arthur Young & Co.; Price Waterhouse & Co.; Arthur Andersen; Haskins & Sells; Ernst & Ernst; Peat, Marwick; Lybrand's; Touche, Ross. With a few U.K. firms, they are "the international accounting firms." Note that every company that has received investment capital from the International Finance Corp. has been audited by their affiliates.

• **Standards** — Accountancy in many countries is in poor repute today because there is not enough demand for it. This is changing as more companies are listed on stock exchanges, as more companies need to raise capital. As demand for the accountant's services increases, so do his professional standards. ●

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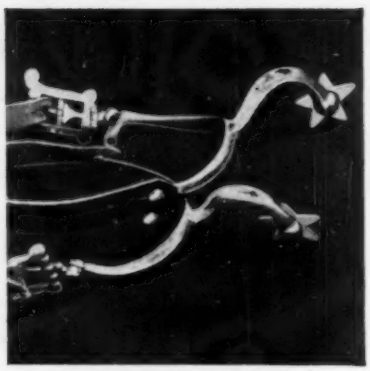

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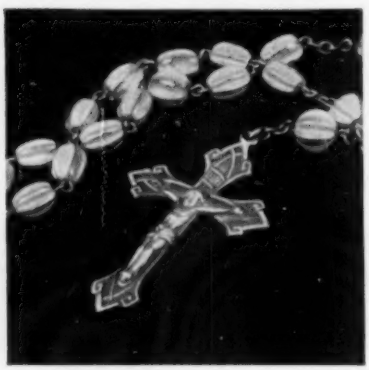

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Frederik ("Frits") Philips takes the presidency of Philips Lamp, celebrating its 70th anniversary this year. Despite great progress, problems remain, and Frits—together with employees and stockholders around the world—counts on solving them with . . .

Teamwork – in the Philips Fashion

"I DO NOT BELIEVE that the tough, businesslike Philips board appointed Frits just because of his name. Knowing him fairly well, I trust him to take hold of the leadership."

That was a Netherlander, commenting on the change imminent in the top ranks of his country's business management. For on the 29th of this month, Ir. (for engineer) Frederik Jacques Philips becomes the President of N. V. Philips Gloeilampenfabrieken, fourth-ranking electrical-electronics manufacturer in the world and one of the bright stars in Holland's industrial diadem.

Not only Netherlanders will be watching the changes at Eindhoven. Half of Philips' production and the vast majority of its sales (estimated at just under 5,000-million guilders last year) take place outside of Holland; Philips is known around the world as an innovator, competitor, and employer — with plants in 16 European countries and 16 nations overseas. Investors, too, are watching: Philips shares have become one of the most popular European holdings in investment trusts and individual portfolios on both sides of the Atlantic.

I. Team Play

Most Philips men probably would avoid any fuss over Frits Philips' appointment. For at Eindhoven it is the "team", not the man. With the death in 1951 of co-founder Anton Philips, management changed from near-dictatorship to leadership by a highly-disciplined team. For the past decade, the team has worked under Pieter F. S. Otten, Anton's son-in-law, with Frits as vice-president.

Otten, friendly, shrewd, often brilliant, reaches retirement age of 65 in April. But to maintain Philips' cherished principle of continuity, he will remain as an executive director and board chairman—presumably to cast some influence over policy while Frits begins to do the work as "first among equals." With Frits and Otten will be three Philips stalwarts: lawyer A. J. Guépin, engineer Th. P. Tromp, and financial expert W. A. de Jonge.

• **No Monopoly**—One member of this "Presidium" explains: "Our views on relationships can be summed up as follows: Free cooperation that is founded on democratic principles within a body, and federal principles outside it, are better and more lasting than dominance. No man can have a monopoly of thought and action."

Outsiders point out that many large enterprises carry the same high-sounding slogan on their managerial escutcheons, but it does not always work. But one thing that strikes everybody who has to deal with the Philips company is the cooperation between managers of different departments, the apparent harmony in top management, the loyalty of workers. And it is a fact that there has never been any gossip about a battle within the Presidium, and Philips has never had a strike.

Pieter Otten once described the "secret" of Philips' management to INTERNATIONAL MANAGEMENT: It is wholly a matter of men, good men, constantly being interchanged, brought together from various departments, trained to work together in the Philips way.

II. To the Manner Born

"I can claim the longest service of all Philips employees, because I've been connected with the works since my birth 55 years ago," says Frits. Just 15 years before, Frits' father Anton and his uncle Gerard had founded the small lamp factory, and Frits grew up with it.

Later Frits saw the Philips company through its darkest days. His career started with the Dutch tool and weapon-maker Artillerie-Inrichtingen, later he became manager of several Philips departments. But World War II brought him into his own: When the entire Presidium left Holland before the advancing Germans, Frits—then a Dutch Army captain—stayed behind to try and save what he could. Though only 36, he proved an adept diplomat and became very popular with the workers. When Philips Lamp was 50 years old in 1941, spontaneous festivities sprouted from nowhere and Frits, anxious as to what the German "trustees" would say about all the noise, rushed out to look. He was swiftly lifted up and carried on the workers' shoulders through the factories.

• **Gift**—Today, one of his outstanding gifts is that he never feels ill at ease, and mixes with bench

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workers and chauffeurs as smoothly as he does with government ministers and sovereigns. He is a good speaker and his wit has helped many a meeting, nearly deadlocked, to end successfully.

Frits is not the tough tycoon that is expected to sit at the top of huge international businesses. He has a strong "social consciousness", and is a fervent admirer of Dr. Frank Buchman's Moral Re-Armament movement. Says Frits:

"I believe we have combined the economic and social interests of this business in the right way.... Hence we laid down in our new articles of association after the war that the aim of our enterprise is not only economic-materialistic, but also economic-social." The clause Philips spoke of reads: "In order to promote the interest of all concerned with it, the Company shall aim at a long-term welfare policy and maximum useful employment."

• **Welfare**—Thus Philips the industrial company, like many governments (such as the U.S.A. with its Employment Act of 1946), committed itself to welfare and full employment.

Welfare is very much on Frits' mind. He cannot forget, he says, how in the 1930s a third of Philips' employees had to be dismissed; he remembers them waiting patiently outside the gates in case a job became vacant. It is not surprising that he has warned—as have many European industrialists — against expanding too fast, too far, during the last decade's boom years while the orders came rolling in.

And how they rolled in. Philips sales rose 85% in the past five years, net profits went up a re-

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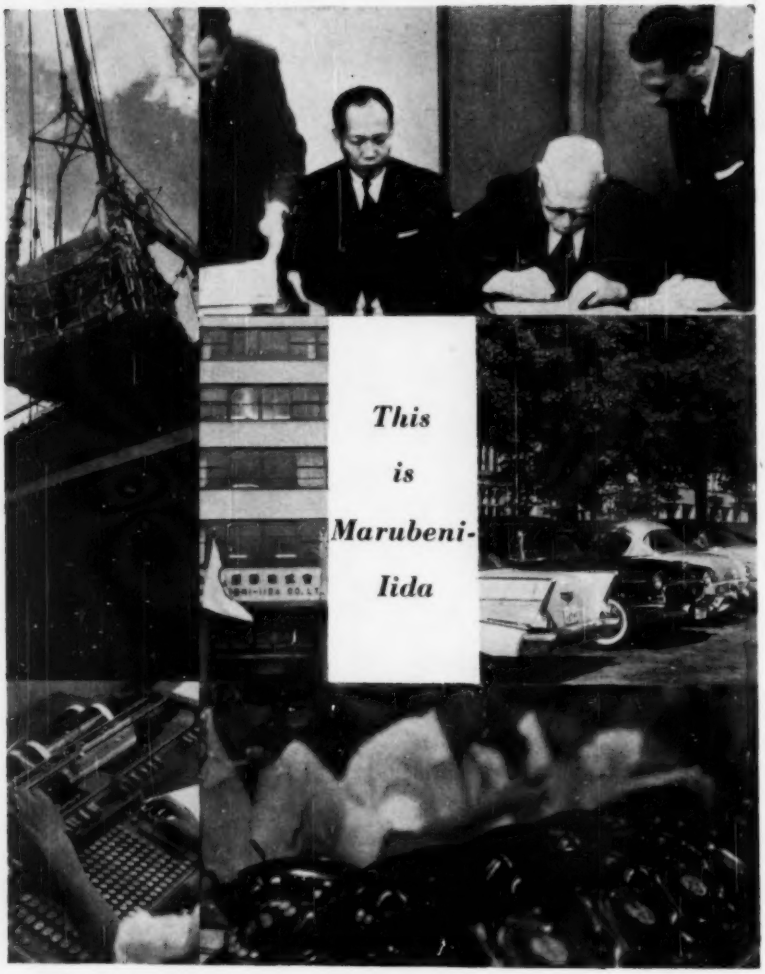

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sounding 150%. Since 1949, sales have risen nearly 500%, and net profits over 2000%.

III. Things to Do

Though his concerns have been mainly personnel matters (Philips has close to 200,000 employees), research (Frits helped set up the huge Central Laboratory in Eindhoven), and international contacts within the far-flung Philips "federation" of international subsidiaries and affiliates, Frits must now concentrate a lot of his efforts on long-range planning, organization, and marketing. Philips is getting the toughest competition it has known in world markets, and if it is to keep growing it must move on a number of fronts.

Indeed, some outsiders in the investment community warn that Philips may face a declining rate of sales growth in the near-term future, and suggest that profit margins will not be as fat as they were during the 1950s. For one thing, Philips' performance has been heavily influenced by booming sales of its staple consumer items—radio and TV—and in some major markets signs of consumer resistance, possibly even some market saturation, have appeared.

But while the investment men are quick to talk of short-term problems, they agree that the long-term outlook for the company—and for its shareholders around the world—is excellent.

• **More Industrial?** — Philips' management seems well aware of the need for further intensive research and development—in new consumer goods, and especially in industrial products (the sales breakdown is 60% consumer goods, 40% industrial, and the thinking in Eindhoven is toward emphasis on the industrial side). There's the matter of organizing new production lines, and continuing Philips' decentralization (here Frits may want to move faster than Otten did); also Philips has the knotty problem of rationalizing its many production facilities within the two European trading blocs. And far from worrying about under-employment, Frits must contend with labor shortages in Europe—though the company's diversification and decentralization have helped to protect it in this regard. ●

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Genesco's Pattern of Growth

It is seeking a balance between making and selling.

WHEN GENESCO, INC., sold nothing but shoes, the company had to send people to Paris to study fashion. This led Chairman Maxey Jarman to a philosophy of growth, based on a broad base of fashion products. "We are interested in anything that people wear," he recently told *Business Week*.

• **Logical Pattern**—Thus Genesco has found its own answer to the question that plagues businessmen: the best way to grow. The company spread logically from shoe manufacture (the General Shoe Corp. became Genesco, Inc., in 1959) to shoe retailing, from shoe retailing to apparel retailing, and then back to apparel manufacture.

By acquiring going concerns, Genesco increased its volume by almost a third in the past five years, to $360-million last year. Currently, the company controls 800 shoe outlets, and sells to 15,000 independent accounts. It controls several women's wear landmarks, including New York's Henri Bendel and Bonwit Teller (plus an interest in Tiffany, the jeweler); it controls several chains of men's wear stores. Its manufacturing subsidiaries make foundation garments, knitted lingerie, men's wear.

• **40%-60%** — The company's ideas on how much vertical integration it seeks are flexible. Speaking of shoes, which account for about half the company's business, President Ben. H. Willingham says, "We buy hides and take them to the tanner. We make some leather, and make some shoes. . . . We retail. . . . We have a chemical company; we make glues and finishes. We buy rubber and process some soles." But there is no way of knowing, he concludes, what the pattern might be for the future.

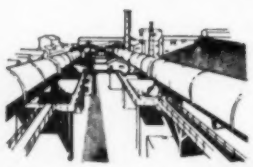
Chairman Jarman says he still thinks of himself as a manufacturer. "Maybe 40% retail, 60% manufacture would be about right." This is roughly the case at present.

Working through independent merchants is more profitable, Genesco says, because its own stores require a double investment. And operating both prestige and high-volume stores presents a problem. But there is also a big advantage. From low price volume outlets, Genesco gets fast market "signals" as to what its factories should make. From its higher-price prestige stores, it keeps abreast of fashion trends.

• **Management**—To manage this wide range of operations, Chairman Jarman gives Genesco subsidiaries a good deal of autonomy, with control at the top. The pattern can be seen at Bonwit Teller: Four Genesco officials are on the store's board, Bonwit Teller's president sits on Genesco's board.

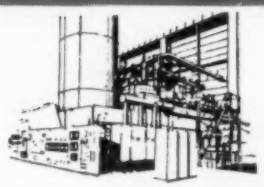
Taking the long view, President Willingham rates executive manpower the company's Number One problem. Genesco's training program aims at having at least one person ready and able to fill every important position in the company's management. ●

Wire Rods



Cement Plant

Power Shovel



Oxygen Plant

Main Products

Civil Engineering & Cement Machinery
Chemical Machinery
Other General Industrial Machinery
Rolled Steel Products
Steel Castings & Forgings
Light Metal Alloy Castings & Forgings
Titanium Products
Non-ferrous Metals Products
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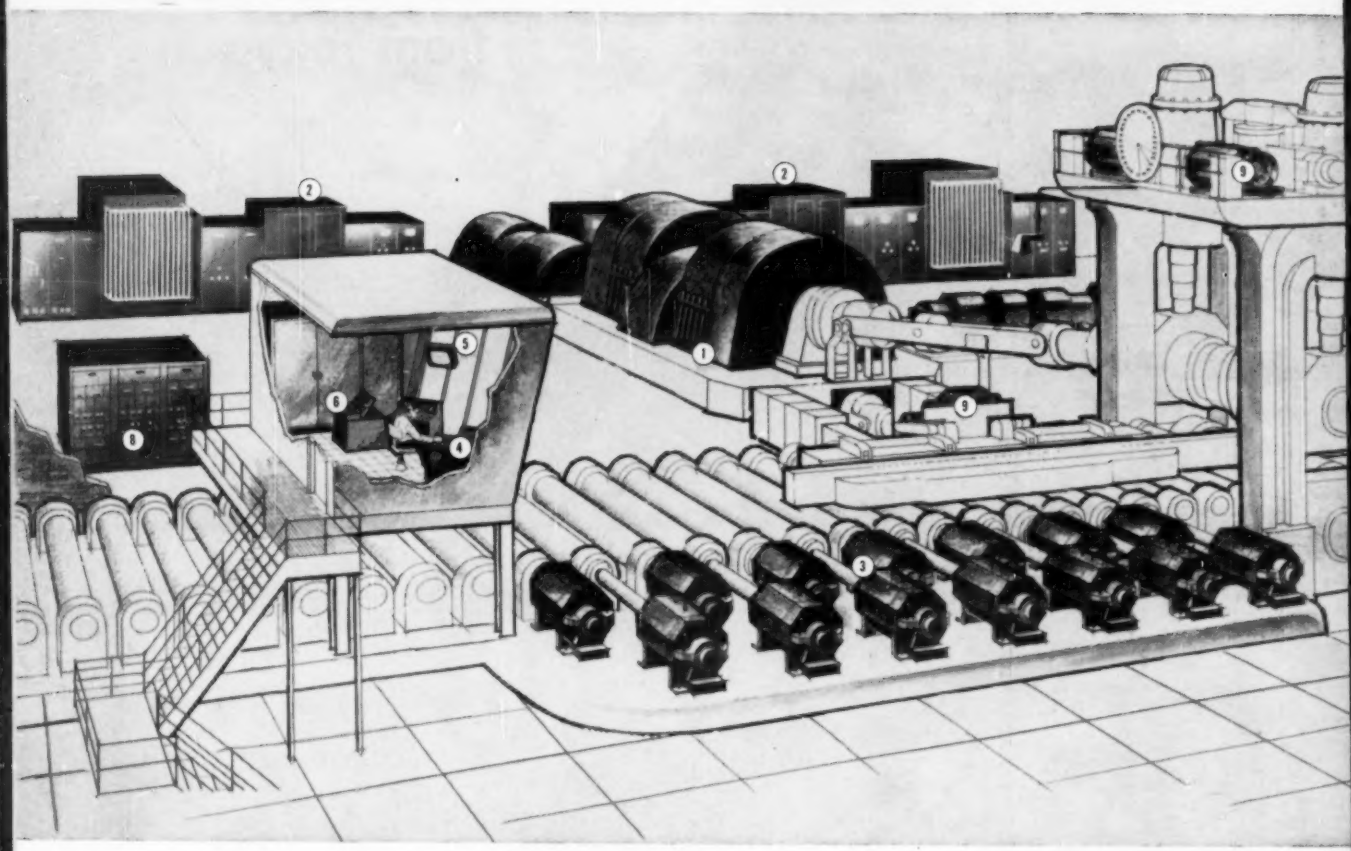


Above is General Electric's version of a completely automated reversing hot mill. While your facility may differ, the products and technology for automation are available from General Electric today.

1 "TOP-FORWARD" arrangement of main drive motors combines accessibility and easy maintenance features with reduced installation and construction costs.

2 Reliable d-c power to main drive motors is provided by either mercury-arc rectifiers using new Silicon Controlled Rectifier firing circuits or motor-generator sets, depending upon operating conditions.

3 MD-600 auxiliary mill motors power individual rolls, eliminate reduction and bevel gears, and reduce maintenance.

4 Mill operator's control console including X-Ray Sensor Read-out provides finger-tip control of entire mill operation.

5 Closed circuit TV gives operator visual contact with remote and inaccessible mill operations.

6 Data processing equipment can record dates, set up operating guides, and ultimately control the process using the GE312 general purpose, digital control computer.

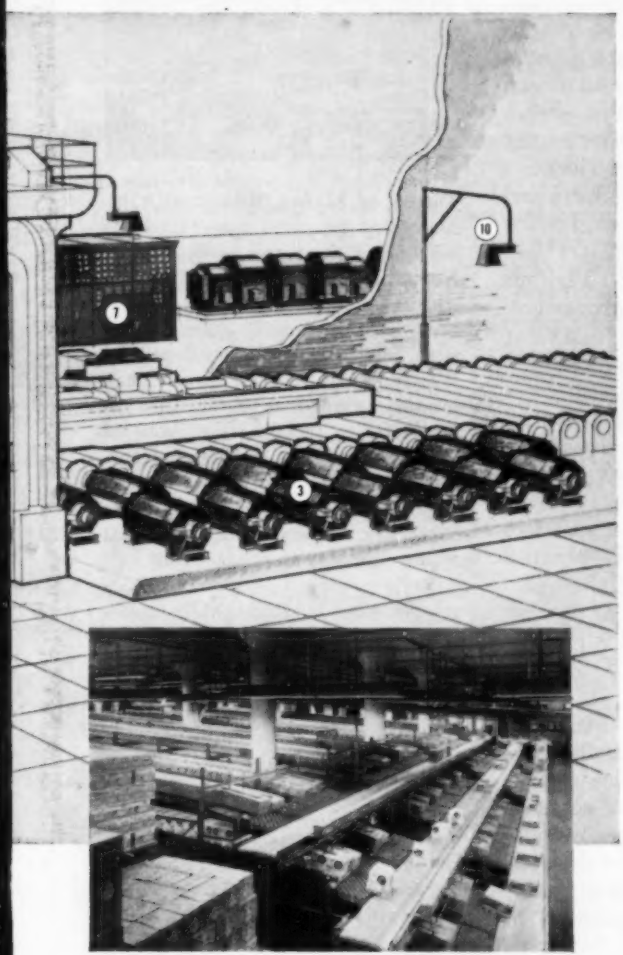
7 DIRECTO-MATIC main mill control utilizes quick-response static control to provide specific direction during the short time required for mill reversals.

8 DIRECTO-MATIC static program control equipment provides fast, precise control of system operations based on predetermined schedules.

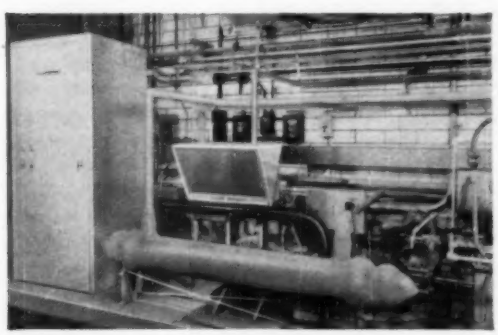
9 Rugged MD-600 screw-down motors provide instant response and minimum maintenance to the most vital mill operation.

10 Hot metal detectors note when metal is "in zone" and initiate next step in operation. This saves rolling time and increases accuracy.

From General Electric
MONEY AND INCREASES PRODUCTION



Automatic order selecting is controlled by a punched card inserted into reader to "recall" desired items from storage. Each item is automatically selected, assembled with others of same order, and routed to shipping.



X-Ray analysis of mixture moving through pipe is fast, accurate, continuous. Instantaneous feedback to feeder mechanisms corrects mix, assures quality of end product.

New Automatic Techniques Increase Speed And Efficiency... Assure Higher Product Quality Through More Precise Control

Today, despite the many pressures forcing costs up, alert industrial management is taking effective countermeasures. The solution: lower costs through effective use of today's new automation technology. *And leading the field in serving these automation-minded companies is General Electric.*

For example, many plants in the metalworking industry are currently in the midst of a major changeover to automatic machining of job-lot parts. Machine tools equipped with General Electric "Mark Series" numerical controls mean greater machine output, elimination of special tooling, lower inventory needs, with better product quality. Net result: cost savings of 50% and more on job after job.

In metalrolling, the world's first completely computer-directed hot-strip steel mill—automated by General Electric—will be in production this year. G-E Automatic Dispatch Systems for electric utilities select the best combination of generating equipment for each load condition—for lowest cost electric power. General Electric information-handling skill and process know-how are at work to bring the cost and quality benefits of computer control to such industries as petroleum, chemical, and cement. G-E automatic material control systems now in use range from post offices to packaged goods.

The solution to *your* cost problems may be a complete General Electric automation system—or the initial stage in a program leading to eventual integrated automation of your business. An early discussion with your local General Electric representative is a good first step in determining the answer.

For more complete information, fill out the coupon below and mail it to: *International General Electric Company, Dept. 25-12G, 150 East 42nd Street, New York 17, New York, U.S.A.*

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Business Looks for Something New

DEVELOPMENT of products and processes has become the key to business survival in an age of fast-changing technology and more competitive markets. A company can make a fast fortune by being the first to come up with a way "to do it better," or a new plastic, a new machine, even a new hula-hoop. And it can go bankrupt if it stands still while competitors move ahead.

Around the world, more businessmen are spending more money to come up with *that something* that is new and better. They are deliberately setting out to develop, year after year, products and processes which they hope will keep their companies growing (IM—April '60, p9). In the U.S.A. alone, private industry last year spent $10,000-million on research and development. Perhaps 80% to 90% of this went into product creation and improvement.

The rate of spending varies from industry to industry, of course. So-called "growth" industries in the U.S.A.—plastics, electronics, and the like—are investing up to 7% of each sales dollar. Others—autos, appliances, foods, for example—spend 1½% to 3%. Not every development dollar will earn dividends. Many products and processes will flounder and sink.

This is the problem that is plaguing management as never before: how to spend development money wisely. Decisions are especially treacherous in the field of consumer goods—because so much depends on fashion and the public mood. But the question of how much to pour into a new industrial product or process can be equally difficult: Will it work, and if it does, will it provide sufficient economies to make it saleable?

THERE ARE no simple answers. But *Business Week* magazine recently noted these trends among American industrialists:

1. Manufacturers seriously question the past practice of frequent model changes—an "annual" line of autos or TV sets.

2. They doubt whether a change in appearance really sells any more; they detect growing annoyance on the part of the consumer, be he a homeowner or an industrial purchasing agent, with changes that mean nothing in performance or quality.

3. Planned, "built-in" obsolescence may not only be unfair to the consumer but also it may be unprofitable.

A product or process must satisfy a real need if it is to succeed over the long haul. And Americans suspect that some of their overseas competitors have realized this better than they over the past few years. But now the view is unanimous: Pretty packages and a new name can add slightly to appeal, but they cannot substitute for real improvements.

The real improvements come hard: They require more brains, more money, more work. But they pay big dividends—not only to the developing company, but to the world economy in general.

SO THAT READERS may be better informed of the progress of innovation, INTERNATIONAL MANAGEMENT introduces this "showcase" of Products & Processes. Each month the Editors will present a selection from the scores of new developments reported in the U.S.A. and elsewhere. We will attempt to sift the wheat from the chaff, and publish those items that represent genuine advances—and business opportunities.

Tables of Light: Tables with luminescent tops add a touch of the unusual to the tower restaurant of New York's new Time Inc. building. The table tops are actually Rayescent electric lamps, glass panels with conductive film developed by Westinghouse Electric Corp. They produce glare-free light that is flattering to the diners as well as the table settings and decorations.

Fast Processing: Grinding rates 50 times higher than chemical plants now get from vibrating ball mills is promised by a process developed by British researchers H. E. Rose and R. M. E. Sullivan. The new patented approach uses a circular mill, strong springs that permit fast speeds, and equations for assuring the highest possible grinding media. (*Chemical Week*)

Super Glue: An aluminum-epoxy product developed by U.S.A.'s Devcon Corp. is said to be one of the strongest, most versatile repair materials available today. Squeezed out of a tube, it adheres tenaciously to steel, aluminum, bronze and glass surfaces.

Fire-Proof Spray: A fire-proofing chemical called Nakaron F, developed by Japan's Ichiemon Co. Ltd., is dissolved in water and then sprayed on curtains, wall paper, and wood without hurting the materials. The chemical is said to remain effective for five to six years, and to offer protection against mold and rot as well as fire.

Transistorized Ignition: A system that uses transistors to do away with condensers and contact points is being tested by a division of U.S.A.'s General Motors Corp. The system is being used for the igni-

and Different

tion of trucks, tractors, and stationary engines—and may eventually be applied to autos. Transistorized ignition is said to sharply reduce maintenance (one pilot system ran for 5,000 hours without trouble). (*Business Week*)

Bagasse Newsprint: Powdered, depithed sugar-cane bagasse is the key to a $20-million newsprint plant being built in Karad, India. The powder is produced by a patented process developed by the Hawaiian Sugar Planters Assn. and a large U.S. paper company. Newsprint production at the Karad plant will at first utilize a mixture of bagasse and wood pulps, then be converted to 100% bagasse.

Highway Markings: A company in Brugg, Switzerland, is combining paint with tiny glass globules in a preparation for marking highways. The glass reflects the light from approaching cars.

Plastic and Concrete: The foamed polystyrene panels being put in place above serve as forms of external concrete walls and as a base for interior plastering in a one-story health center being built in California. The concrete is sprayed on and between the panels and forms a tough, attractive and inexpensive exterior. (*Engineering News-Record*)

Sintering in Glass: Powder metals can be sintered faster and cheaper by immersing them in molten glass, says D. Yarnton of Britain's Rotherham College of Technology. The molten glass not only heats the parts but protects them from oxidation. (*Product Engineering*)

Freight Savings: A U.S. producer of drugs and toiletries, Humphreys Medicine Co., has found a way to concentrate witch hazel, which normally consists of about 99% water and alcohol. Reducing the product to its 1% active ingredients has meant a big savings in freight costs, and has helped Humphreys triple its exports. Some shippers are wondering if the same process might also be applied to other medicated waters, such as wintergreen and peppermint—even whisky and brandy. (*Chemical Week*)

Compact Truck: Taking competitive aim at the small European trucks now entering the American market, U.S.A.'s International Harvester Corp. soon will come out with a compact vehicle known as the Scout. The new truck will have a wheel base of two and a half meters, either two- or four-wheel drive, and a four-cylinder engine. It will have an integral pickup body with a detachable hardtop cab that can be quickly removed to provide a completely open model.

Homemade Electricity: A device that may allow a homeowner to make his own electricity from gas or petroleum is being researched by U.S.A.'s Northern Illinois Gas Co. The device—a thermoelectric converter—would be far more efficient than a gasoline-operated generator. It converts the energy from burning fuels directly into electricity, and it can come in a variety of sizes and wattages. (*Petroleum Week*)

Improved Metals: A titanium alloy being tested by U.S.A.'s Titanium Metals Corp. looks promising for jet engines, compressor disks, and other stressed parts. With small quantities of aluminum, molybdenum, and vanadium, the metal is lighter than most titanium alloys but has satisfactory tensile strength at 500 C . . . Another American firm, Adams-Millis Corp., has found a way to make 30% stronger aluminum die castings with a sonic-vibration unit that compacts the molten aluminum.

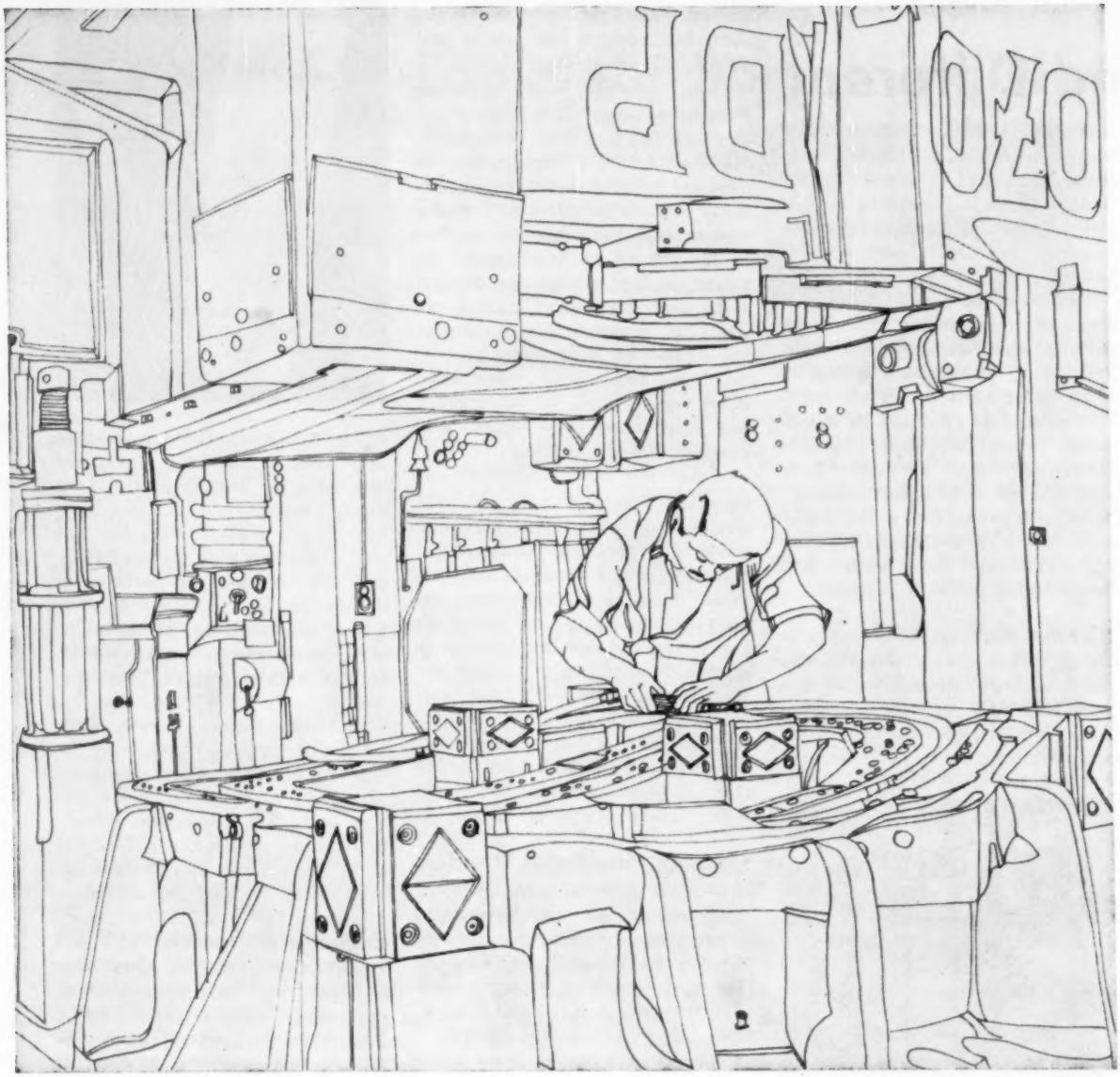
Infra-Red Heat: Temperatures of over 1900 C can be produced by this infra-red heating unit using a ceramic-quartz reflector. Developed by U.S.A.'s Plastic Weld Co., the unit comes in a wide range of sizes, and can be used for portable or production-line service. Applications: heat-treating, stress-relieving, space-heating, metal pre-heating for inert welding. (*Factory*)

Man-Made Paper: Paper from 100% man-made fibers may be forthcoming from a new rayon developed by American Viscose Corp., New York. The new cellulosic fibers firmly bond themselves and lock in other fibers when they are formed into a wet web and then dried.

Electronic Air Cleaning: U.S.A.'s Minneapolis-Honeywell Regulator Co. soon will begin marketing an electronic air cleaner for the home. The electrostatic, two-stage precipitation unit—expected to cost the American homeowner $350—will collect particles as small as tabacco smoke. (*Electronics*)

X-Ray Unit: A portable X-ray machine weighing only 150 kilograms has been designed for fast emergency service by Austria's Elin-Union A.G., and is now being used by United Nations forces in the Congo. The unit sets up in eight minutes and does both fluoroscopy and X-ray photography.

Preparing Metal: The Hungarians are roughening metal surfaces for coating processes by electrically depositing nickel "bumps" on the workpiece. (*Product Engineering*)



minuteness and skill...

RT - 111-15

This man, bent over a piece of precision work, is perpetuating a tradition. He is the direct descendant of those who throughout history have established France's renown in manufacturing - a renown of being the world's most skilled artisans. He is reponsible for maintenance of the giant presses of the Renault plants at Flins, France. Regularly, every one of these presses undergoes his thorough inspection. He rids them of all traces of oil and grease; he minutely polishes all the surfaces; he controls the sharpness of the cutting edges and the frequencies. His trained eye, his skilled hands and his expert movements are the guardians and the guarantors of the quality of the work of giant robots transforming – every day 500 tons of sheet iron into 2000 Dauphines. Equally... and at every stage of production of the Dauphine in this last word in automation at Regie Renault's plants at Flins... man, facing the machine, always has the last word : He supplies the element of human care and attention to the quality of an automobile that is loved as much by those who build it as by those who drive it.

RENAULT

Renault's factories at Flins, the most fully automatic in the world, produce one Dauphine every 18 seconds.

Are you overlooking one of the most effective techniques ever devised for studying industrial markets? It is the Standard Industrial Classification (SIC), used by many governments to report statistics. To marketing men . . .

"SIC" Opens New Sales Opportunities

INDUSTRIAL-PRODUCT manufacturers seldom have more than a vague knowledge of their markets. McGraw-Hill's director of research, John C. Spurr, has had reason to doubt the efficiency of market planning even in some of the largest and most powerful corporations. Not long ago he asked 10 U. S. petroleum companies to provide estimates of the market for lubricating oil and grease in American manufacturing plants—as a percentage of the total industrial market (which includes construction, mining, etc.). Only three companies could give any estimate at all, and these three were not very close together.

Spurr suggests that industrial marketing men, and probably businessmen in general, pay too much attention to ready-made statistics. The profusion of statistics coming from some government and other sources (trade associations, for example) may be holding back company market planning. "The great mass of these facts," he says, "give many people a false sense of knowledge. They see the intricate pattern of industry, but fail to realize that to be useful these figures must be interpreted separately for each company, and for each specific product and marketing objective."

• **Common Language** — The secret of keeping abreast of industrial markets, Spurr testifies, is learning to use a Standard Industrial Classification (SIC). By classifying markets according to a standard code, a company can locate and define its best markets, determine its sales potential in each market, and organize a sales network to match the sales potential of each geographical area.

The SIC is a common statistical language, originally developed for use by government agencies. The first SIC was developed by the U. S. Department of Commerce in the 1920s. Since 1948, there has been an International SIC, used and recommended by the United Nations Statistical Office. The international code is a three-digit decimal system. This means that major industry groups are classified by two digits, with major subclasses created by adding a third digit. Additional digits can be used to create a "third layer" (see example below).

Most nations have either adopted the international standard classification outright, or have national SICs that are compatible with it.

Of the highly industrialized nations, only Germany, France, and Italy have national classifications that are not fully compatible with the ISIC. Indeed, the six nations of the European Economic Community have not agreed on a standard industrial classification. To marketing men, this is a serious matter: Can you have a common market without having a common statistical language?

• **Step by Step**—As a first step in market planning, a company must classify its own sales records according to an SIC code. This might be done by simply coding all incoming orders. Monthly analysis of the sales pattern will soon indicate which industries are the most important. Most companies that do market planning start by classifying sales records, usually a year's supply, to determine the pattern of industrial demand.

How SIC works

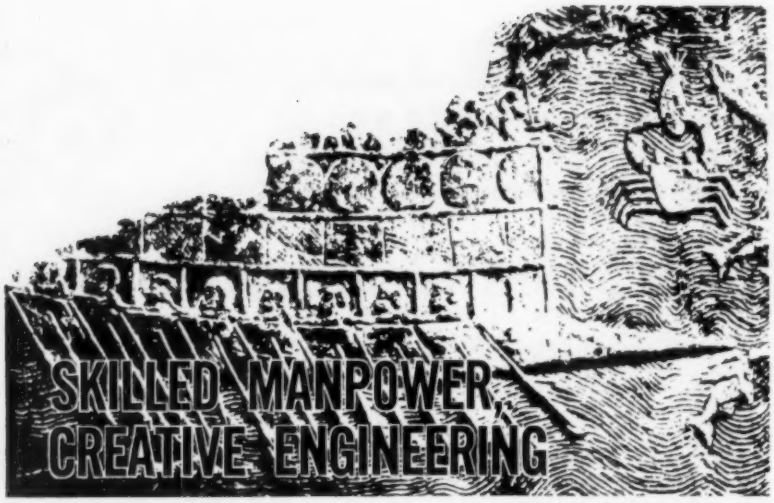
Adding a digit creates subclasses to a major industry group:

22—Textile mills
225—Knitting mills
2251—Full-fashioned hosiery mills

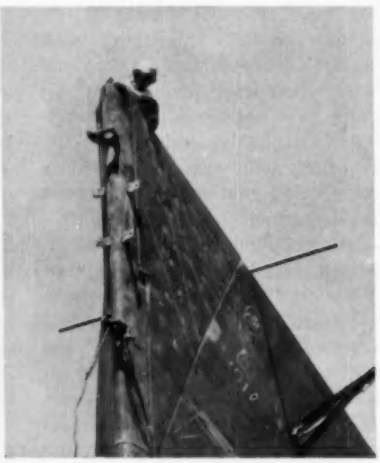
To classify its markets, a company must decide how many digits are needed for an adequate breakdown of markets. For minor markets, a two digit breakdown is sufficient—and probably as detailed as you could be and still have meaningful figures. For major markets, three or four digits may be desirable. It depends on the complexity of the market, and national classification codes usually reflect this: Four or more digits are the rule in Europe, for instance, and three digits in Latin America. A company can begin with a two-digit breakdown and later expand to three or more.

• **Benefits**—By coding records, a company can locate its best marketing areas. And this can give some immediate benefits. Besides the advantage of a monthly sales analysis, by industry and by sales district, it becomes possible to allocate the advertising budget on an industry basis. Many U. S. business magazines issue audited circulation statements broken down by SIC category, and a company can select its audience by matching its SIC pattern to the publisher's list.

Publishers of business magazines, in fact, were among the first to use the SIC code as a market planning tool. Their first interest was in keeping customer and prospect lists by a standard classification. As a byproduct, many publishers began to put out industrial directories classified with the SIC code. McGraw-Hill's *America's Manufacturing Plants*, for instance, lists every plant in the U.S.A. with 20 or more employees. Dun & Bradstreet publishes the *Million Dollar Directory*, which classifies all business firms with at least $1-million in net assets.



Skilled manpower and creative engineering is the essence of progress which today rules the Seven Seas. This progress is constantly evident in the new luxury passenger ships, the rapid passenger-cargo ships, the sleek tankers, ore and bulk carriers dotting the globe. The Mitsui ships stand out anywhere — everywhere, in fact, where there's water. And each ship is the symbol of Mitsui manpower and engineering, skill and creativity without peer today and unchallenged tomorrow.



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An Italian publisher has been commissioned to produce an SIC-classified industrial directory. Magazines serving the same industry make it a point of competitive pride to offer up-to-date censuses of plants, listing location, products, employment. These directories and services offer tremendous help to the market planner.

• **Refining Markets**—By concentrating on "the few that buy the most," a company can get a maximum return from its sales and advertising efforts. The rule of thumb among market planners is that 80% of sales come from 20% of the customers. In a recent study of metalworking markets for one product, McGraw-Hill discovered that 83% of all purchases were made by plants with 50 or more employees; and these plants represented only 4% of the metalworking establishments. Thus it pays a company to concentrate on plants above a certain size. It might be 20 employees, 50 employees, 100 employees, or more.

According to *Sales Management* magazine, Cambridge Wire Cloth Co. recently assigned a task force to search industrial directories for all plants in certain SIC categories with 50 or more employees. All of these plants are now being contacted by letter, telephone, or personal visit to find out how much wire cloth they use, and what executives in the plants are concerned with buying the product.

On the basis of this study, Cambridge plans to revise its list of prospective customers. It is estimated that over half the present 45,000 names will be dropped, with many new names added. This will save the company an estimated $12,000 in wasted promotional expense.

• **Sales Potential** — Companies with sales to a relatively few industries can often get consumption data for nearly all of their prospective customers. But this is seldom true for companies that sell more or less "across the board." These companies usually resort to statistical sampling techniques, which is work for a professional market researcher.

Once the sales potential for a market sample is known, the company can project a sales potential for the entire industry. The prob-

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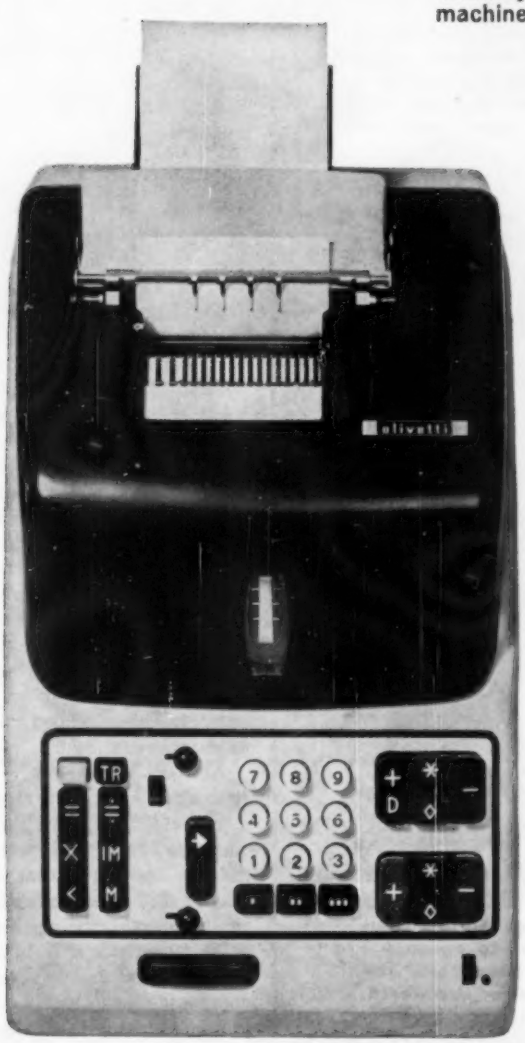
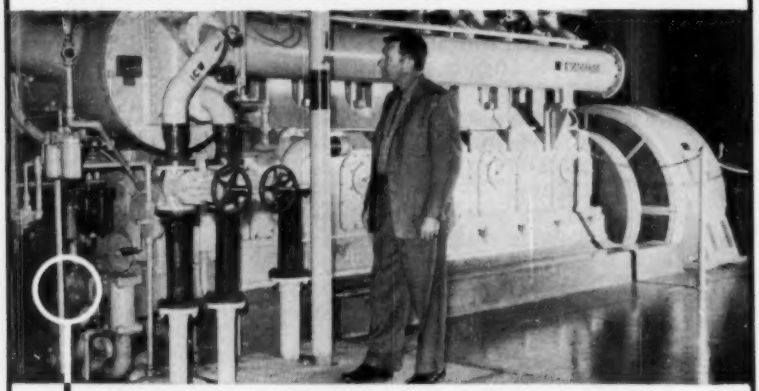


Olivetti Tetractys

EVEN MISSILE BASE POWER UNITS USE VIKING PUMPS



WHEREVER smooth, dependable pumping is required, you're apt to find **VIKINGS.** No wonder, then, that **VIKING PUMPS** were used on the Nordberg diesel generating units at Vandenberg Air Force Missile Base in California. The base must always be ready to launch its Atlas guided missiles without fail and the generating plant insures an independent, dependable source of power for this purpose. Lubrication to each of the six Nordberg engines in the 8000 horsepower, 5700 kw plant is supplied through **VIKING PUMPS.**

For the most dependable pumping equipment available, specify **VIKING PUMPS.** Used integrally or as independent units, **VIKING PUMPS** can be depended upon for efficient service and long life. For information, write for catalog section 61S. **VIKING PUMP COMPANY,** Cedar Falls, Iowa, U.S.A. In Canada, it's **"ROTO-KING" PUMPS.** World-wide Sales and Service.

50 YEARS

CECO-DROP

The World's Most Modern Gravity Drop Hammer

No Boards • No Front Rod • No Back Rod • Air or Steam Piston-Lift, Gravity Drop • Costs Less to Operate • Forges more minutes per hour • Safer and easier to operate • This hammer is setting new records in cutting costs and increasing production, in forge shops all over the world.

Write for catalog and complete details

CHAMBERSBURG ENGINEERING COMPANY • CHAMBERSBURG, PA., U.S.A.

lem is to find a published statistic that relates closely with sales potential. The statistic most commonly used in the U.S.A. is employment—which reflects plant size and production output—or a combination of employment and other economic indicators. Whatever statistic is selected, it is used as a ratio to project the sales potential for that industry. Market penetration, the percentage of total sales held by the company, is found at the same time, by the same method.

It should be noted that neither employment, nor any other statistic, correlates perfectly with product consumption; thus commonsense adjustments have to be made.

As an aid in planning sales territories, an index of sales potential for each industry can be calculated. The index most commonly used by U. S. companies is sales potential per employee, calculated on a nationwide basis.

This sales potential index, when multiplied by the total employment in any given geographical area, gives the sales potential of the area. By experimenting—punched cards are helpful here—a company can set up a sales organization to best exploit the market.

The Stanley Works, an American hardware maker, plans new sales territories according to SIC calculated potentials. "These somewhat academically-developed territories," an executive told *Sales Management*, "are then adjusted by the sales manager in the light of knowledge and experience."

Arwood Corp., a producer of castings, narrowed down its main markets to five or six two-digit SIC categories. Then these industries were broken down by four-digit classification. According to *Sales Management* magazine, the company was able to open up many new fields for castings.

Arwood had taken for granted that a top manufacturing area was a top sales territory. But when the company rated its territories by SIC, it discovered that some of its "first-rate" selling markets were actually fourth-rate markets. An official comments: "It is this ability to streamline market data to your company's own needs that is the chief advantage of the Standard Industrial Classifications." ●

Quality - and what is behind it

037 AJ

Sturdy construction

Hard work day in day out in difficult terrain - that's a job for Mercedes-Benz trucks. Indeed it is on the most difficult task that they prove their worth to the full. They carry a lot - for a lot of years, a fact which can only be of benefit to you. Sound design, precision and robust construction are Mercedes-Benz guarantees for economical operation.

MERCEDES-BENZ

ADVERTISING
MASS DEMAND
MASS PRODUCTION
Let's Keep Rolling Ahead
We Americans invented mass production, then we had to build mass demand to keep the wheels turning. For this purpose we called upon advertising—the most effective and economical means of creating mass demand. Soon we had more jobs, higher incomes, and better living conditions. And there isn't any limit to how much further we can go, if we just keep it rolling!

In Defense of Advertising

LAST MONTH, the U.S. advertising industry launched a year-long campaign to create a better understanding of advertising—through the mechanism of advertising. The campaign, featuring messages such as the ones above, is under the sponsorship of the Advertising Federation of America (AFA) and the Advertising Association of the West (the U.S.A.'s West Coast, that is).

The entire advertising industry is cooperating. Agencies donated creative talent to prepare the campaign; engravers donated the plates; media are donating advertising time and space.

• **All Media**—Messages will appear on huge outdoor posters and car cards, in business publications, general consumer magazines, the religious press, newspapers; there are recordings and scripts for radio, films for television, even messages to go on the printed tapes of business postage meters.

On top of these donations—worth millions of dollars—it will cost the advertisers' associations some $250,000 to prepare and distribute the materials. At the moment, they are behind on orders. An AFA official says he is "amazed—even shocked" at the demand.

• **Reaction**—The campaign—and its reception—is a reaction to the mounting criticism of advertising. Critics accuse advertising of "waste-making" and "hidden persuading," of manipulating people to buy what they do not need and do not really want.

If nicer language were used, many advertising men would not object to these charges—they argue about them among themselves. But they worry that critics are fomenting disbelief in advertising. They fear that the U.S. consumer is becoming disenchanted with advertising. They are concerned with the anti-advertising speeches by some politicians. But most of all, advertising men believe strongly that the basic function of advertising—the building of mass markets—is misunderstood.

As the campaign got underway, advertising men heard some cheering words from Washington. Endorsing the campaign, President John F. Kennedy referred to advertising as a "dynamic force in our economy." A presidential assistant told a conference of advertising men that President Kennedy's program to increase the U.S.A.'s productivity meant increased consumption, and "the increase in consumption is largely your responsibility."

• **Shoemaker's Children**—This is the role that the U.S. advertising industry wants for itself. It has been successful in this role. But it has never succeeded in explaining its role to the public. An official of the AFA recently summed up the current feeling among advertising men: "Like the shoemaker's children, we have been so busy making shoes for others that we have neglected our own needs."

The theme of advertising's basic function runs throughout the new campaign. A typical message shows a woman in a supermarket:

"With every purchase she votes yes for the product. But how does she know so much about the eight thousand supermarket items? Advertising—that's how! Advertising builds the mass demand that stimulates mass production. As volume goes up, prices come down. Markets widen, jobs increase. These are the forces that keep the economy moving—keeping your living level rising." ●

In Marketing

CONSULTING SERVICES to help customers with distribution problems have been set up by two major U. S. transportation companies.

A counseling service by Pan American World Airways has been put into effect at all of the airline's 140 offices around the world. A shipper can get free advice on marketing problems, business conditions, tariffs and currency problems, in any part of the world served by Pan Am.

REA Express, a domestic shipping company, is offering a similar service for nationally-distributed industrial and consumer products. A spokesman said that REA experts will study a customer's problem from the "total cost" concept, and not the cost of transportation alone. The emphasis will be on eliminating warehouse storage as much as possible.

Among the other U. S. carriers offering some form of distribution counsel are American Airlines, United Airlines, Denver Chicago Trucking Co. (IM—Aug. '60), Pacific Intermountain Express, New York Central Railroad, and New Haven Railroad.

PLAN BACKWARD in planning your direct mail advertising campaigns, advises Harry Nordberg, president of Pitney Bowes, Inc., a U. S. producer of office equipment. Pitney Bowes traces 45% of its new business to advertising. It depends heavily on direct mail to bring in leads for salesmen.

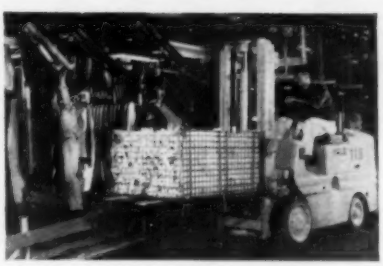
"We have W number of salesmen, and we want to produce X number of leads for them each year," Nordberg told a meeting of the Kansas City Sales Executives Club. "We discover this will take Y number of direct mail campaigns which cost Z dollars. Then we budget that amount of money . . ."

Pitney Bowes tries to supply its salesmen with an average of one and a half to two leads per day. Suppose the sales manager calculates he needs 2,000 leads a year. If the average mailing produces a return of about 5%, and the mailing list is close to half a million names, it will take eight mailings a year to supply the 2,000 names needed to give the salesmen a steady stream of prospects.

WORLD YALE & TOWNE REPORT

ANYWHERE IN THE WORLD YOU'LL FIND THE PRODUCTS OF YALE & TOWNE

TURIN, Italy.—Lifting heavy container of auto body sections is easy for this speedy, versatile Yale petrol truck. On rough cobblestones or smooth factory floors, Yale industrial lift trucks lift, stack and move loads up to 200,000 pounds. By producing the most complete line of materials handling equipment, Yale ensures the right lift truck for each job. Deal with a Yale representative, and you're sure of getting the best!



Detroit, U.S.A.—Successful operation in an automobile plant is measured in terms of high speed production, split-second timing and swift traffic flow. Yale fork lift trucks measure up to this exacting standard by delivering a great variety of goods with greater speed, less downtime, and higher materials handling efficiency.

- Yale makes the world's most complete line of industrial petrol, LP-gas, electric, diesel and hand lift trucks.
- All Yale industrial lift trucks are uniformly high in quality, wherever manufactured.
- All Yale materials handling equipment is available in currencies of the free world.
- For further information contact your Yale sales and service representative—located in principal cities of the world.

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Manufacturing Plants: Velbert Rhld., Germany • Wednesfield Staffs., England • Phila., Pa., U.S.A.
Licensed Manufacturer: FENWICK—Saint-Ouen, Seine, France • Milan, Italy • Barcelona, Spain

VINYL FILM, spread on roof ahead of hot tar and asphalt sheet, serves as moisture barrier and protection from tar drippings in the event of fire.

VINYL-COATED gypsum wall panel can be cemented or nailed to wood.

Architects Bank on Plastics

Vinyl, alone or combined with traditional materials, is moving swiftly into all phases of construction.

THE ALL-PLASTIC HOUSE is still years away. But look at any new house, especially in the U. S. A., and you will see plastics appearing in dozens of applications: coatings on steel and aluminum panels, rigid plastics for storm doors, windows, counters, hardware, pipe and conduit; film and sheeting for insulation, roofing, flooring, and various kinds of water barriers.

• **Vinyl's Future**—Builders are putting almost every important plastic to use—phenolics, polyethylene, polystyrene, alkyds. But the greatest interest is in vinyl, and some architects say it can one day take its place with wood, brick, mortar, and steel as a major building material.

Note the unusual one-piece roof put on a church recently completed in St. Louis, U.S.A. The roof's fascinating series of sharp peaks was built up of plywood panels topped with three layers of vinyl.

The new materials dictated the appealing design of the roof, say architects. They expect the vinyl membrane to last at least ten years.

• **Price Incentive** — Enhancing vinyl's position are its fine properties, and its constantly shrinking price. The most common form, polyvinyl chloride, recently dropped to about 8.4¢ per kilogram in the U. S. A., compared to 10.6¢ in 1959 and 13.5¢ in 1957. Meanwhile, the cost of labor and most construction materials has been steadily going up. And technical developments are showing the way toward the use of less labor in handling plastics parts.

The segments of a window assembly, for example, can be extruded from vinyl to precise dimensions in any shape desired. A minimum of labor is required at the site because vinyl is light, easy to handle, easy to cut.

Building owners like vinyl windows because of their beauty and ease of maintenance. In contrast to wood and aluminum, sash and frames made of vinyl do not stick, swell, pit, or stain. They have integral color, and they offer excellent resistance to abrasion.

• **Better Pipe**—Most vinyl pipe has been going into industrial applications. The chemical inertness of vinyl makes it especially suitable for handling corrosive liquids and slurries in process industries, and large amounts are being used for dairy products and gas distribution.

Home plumbing may soon benefit from vinyl dichloride, developed by U. S. A.'s B. F. Goodrich Co. Pipes made from this new material are reported to withstand temperatures of close to 100 C, more than enough to carry hot water. The new pipe, still in pilot-plant production, is one-sixteenth the weight of copper and comparable to it in cost.

Goodrich also has come out with a new line of vinyl conduit recommended for housing cable when conditions might corrode metal. The plastics product weighs only an eighth to a quarter as much as metal conduit and costs less to install.

• **In Combinations**—Vinyl extrusions compete with almost all other building materials, and they can be effectively coupled with most of them. Vinyl capped over aluminum, for example, is being used to make cheap and sturdy stair railing. Window awnings now are built from vinyl slats and metal crossbars.

Flexible vinyl weatherstripping and gasketing have gained wide acceptance with aluminum doors, windows, and curtain-wall panels. Vinyl outlasts conventional calking compounds because it resists abrasion, embrittlement, and extremes of hot and cold.

Extruded polyvinyl chloride is becoming the material of choice in the U. S. for waterstops and expansion joints in concrete foundations, retaining walls, pavements, bridges, and dams.

Though they both make good waterstops, copper and rubber are costly and troublesome to join. Vinyl is spliced by simply heating the two sections until the material softens, then holding them together for about 45 seconds. These splices have at least 80% of the strength of uncut vinyl.

• **Film and Coatings**—Vinyl film has been going into similar construction uses—as moisture barriers for roofs, shower stalls, foundations, and around windows. The film costs substantially more than tar paper, but it lasts three

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FROM BASIC DESIGN TO START-UP

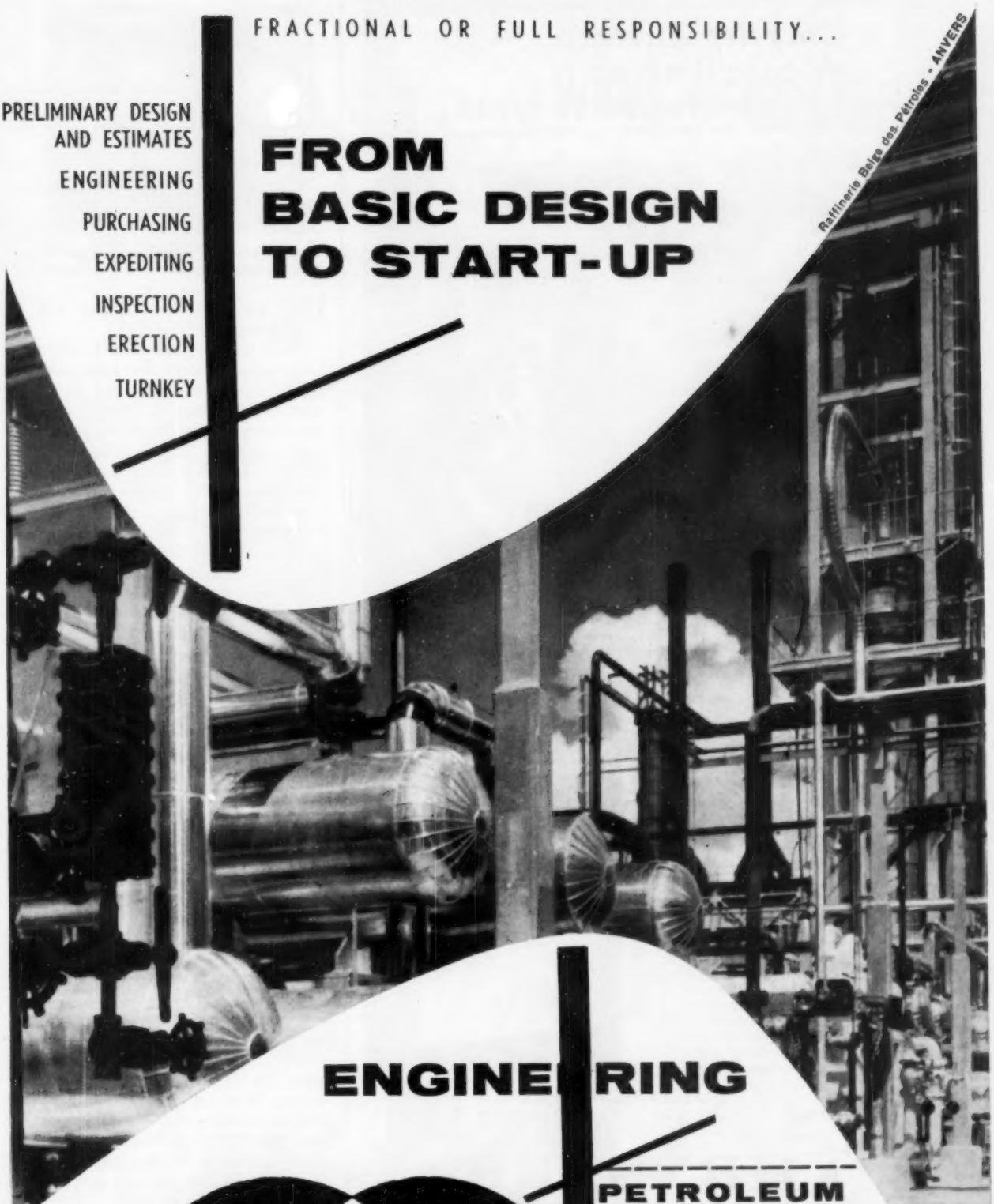

Photo FRANZ CLAES

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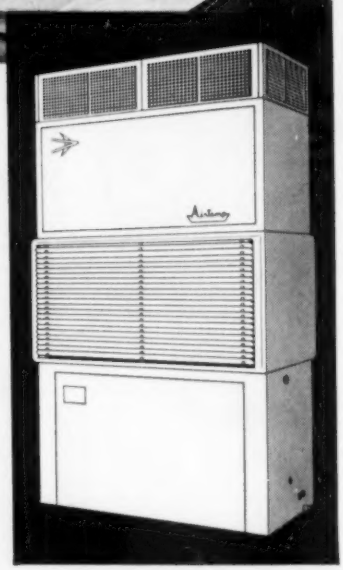
Chrysler Airtemp air conditioning is a smart business investment!

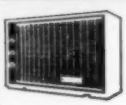
...affecting efficiency, overhead and customer relations.

"I have just been reading my accountant's annual report, and I couldn't be more impressed. One year after installing a Chrysler air conditioning unit, certain improvements in my business are clearly visible. Absenteeism, for instance, has dropped ... general efficiency is higher ... production increased ... maintenance and repair costs were less than the previous year ... employment turnover dropped. I noticed a more pleasant, relaxed atmosphere when dealing with customers—returns that cannot be accounted for on a balance sheet. At this rate my Chrysler Airtemp unit will pay for itself."

"Another thing ... I like doing business with a reputable manufacturer—one that will service me readily when I need it, and stand behind all claims. If you are considering an air conditioning installation, why not see what Chrysler Airtemp has to offer you."



Chrysler Airtemp's compact room units bring luxury and economy to modern interiors.



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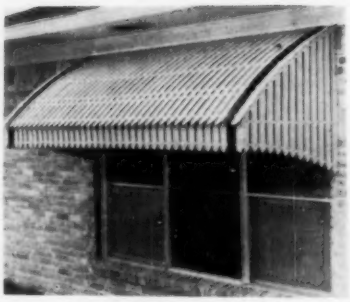


Vinyl slats and aluminum crossbars make sturdy and attractive awnings.

times as long—and it does not tear when it is installed.

Coatings account for another substantial part of the vinyl now going into construction. Vinyl coatings are being applied to steel, aluminum, wood, gypsum board, and concrete. The final products include shingles, siding, gutters and downspouts, doors, and interior wall panels. One estimate indicates that over a quarter of a million U.S. houses last year used vinyl-coated aluminum siding, a 50% increase over 1959.

A vinyl coating adds strength, beauty, and endurance to traditional materials. It also improves insulating and sound-deadening properties, and gives a pleasing warmth to the touch.

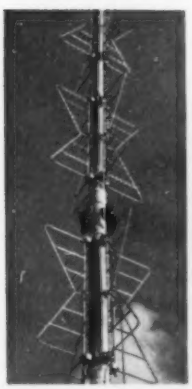
Coatings are sprayed or rolled on to steel or aluminum before fabrication. The plastic can later withstand the stresses of forming, bending, or punching. With wood and concrete, the vinyl normally is sprayed on after the structure has been completely formed.

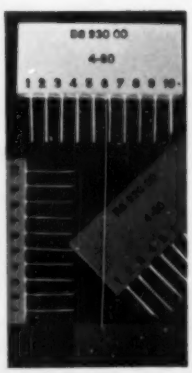
• **The Future**—Millions of dollars are being spent in the U.S. and Europe to test other construction uses for vinyl. Pechiney of France has been working on an "all-vinyl" window, which uses six dies to make everything but the glass pane out of vinyl. Solid vinyl shingles and siding have been put on several experimental homes in the U.S., but builders still complain about cracking and about fastening problems.

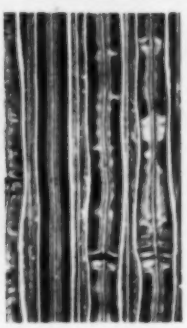
Most experts believe that new ideas in design will eventually solve all these problems. Vinyl chloride, they say, will become an architect's tool for introducing entirely new housing concepts to the public. (*Modern Plastics, Oct p* 83; *Dec p* 83)

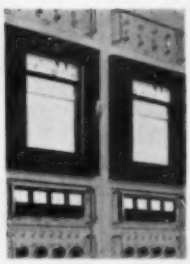
MAN WILL ALWAYS NEED LIGHT

Light. Enlightenment. Health. Energy. For all time these will be basic needs of all men. Philips, in their philosophical moments, regard themselves as people who satisfy such **abstract** needs. Better, they believe, to aim at a lasting demand than a transient means of fulfilling it. Within these limits Philips find limitless scope. Their development moves from lamps through radios, through particle accelerators to semi-conductor devices that should take care of the next fifty years. This facility for meeting current needs while developing future techniques grows out of federation: **specialist** divisions probe ahead, turning ideas into practical propositions; Philips companies in 58 lands market these propositions, in turn propose others and provide a universal service. Their common aim: to bring the untiring and unbounded resources of electronics to the service of all mankind.









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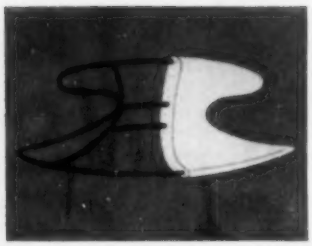

Framework of steel is encased in plastic foam to make the chair at right.

Low-Cost Furniture Making

FINE FURNITURE soon may be mass-produced from steel and polyurethane foam. Two American companies, Karpen Furniture and General Tire & Rubber, have developed a process that makes a chair by molding foam around steel in a single quick step.

This means substantial savings in hand labor. Upholstered chairs normally are made by building sets of springs into a wooden framework, padding this with cotton or tufted horsehair, and then sewing on a muslin cover. Further hand costs come from stitching and tacking on the final fabric.

• **Blown into Form**—The new method positions a tubular steel framework for a given chair inside a mold. Chemicals that combine to make polyurethane then are blown into the mold. The foam sets around the steel skeleton and fills the cavity.

A fabric is glued to the foam after the mold has been removed. A set of legs is screwed on, and the chair is ready for market.

Foamed plastics and rubber are used today for quality furniture, but largely in seat and back cushions. This has limited what a furniture manufacturer can do in terms of design, and it requires a certain amount of hand work. Though the cushions can be made quickly and cheaply, the frame still is mostly done by hand.

• **Better Design**—The Karpen-General Tire method involves little hand craftsmanship and lends itself ideally to mass production. The steel frameworks and molds can be made in almost any size or shape, so the design possibilities are relatively unlimited.

Chairs made by the new process are reported to be durable, lightweight, and flame-resistant. Since the entire chair is padded with foam, there are no friction points and therefore less wear from abrasion. (*Business Week, Jan 7, p 69*)

Absorbable Gauze Can Aid Bleeders

U. S. MEDICAL RESEARCHERS have developed a surgical dressing that may revolutionize operating procedure and wound therapy. Known as Surgicel, the dressing stops bleeding in a few minutes and then is absorbed by the body.

The dressing, a highly purified viscose gauze developed by Johnson & Johnson, has been satisfactorily tested in hundreds of cases in U. S. hospitals. Surgeons found that it readily adhered to bleeding or oozing surface—but not to instruments and gloves.

Surgicel has been found to be of special value in surgery and dental extraction on hemophiliacs, where bleeding normally is uncontrollable. The new dressing has proven itself in a wide range of surgical procedures: operations on the spleen, heart, liver, brain; facial surgery; nose and throat surgery.

Johnson & Johnson and its affiliates soon will be making the new gauze available to hospitals in most areas of the world. Present plans call for use of the dressing primarily in operating rooms, though a product for first aid kits may eventually be made available. Ten-by-twenty-centimeter strips of the gauze sell for $32 a dozen. ●

Timken bearings keep farm tractors and implements rolling to produce more food for all the world

Since 1920, the Timken Company has worked with manufacturers of farm machinery to help them build greater reliability and better performance into all kinds of farm machines. With Timken bearings on their wheels and at vital power transmission points, modern farm machines keep going under all conditions, produce more food for a better-fed world.

It's the tapered design that enables Timken bearings to take all the loads—up and down and sideways—reduce maintenance and give longer life, not just in farm machines but wherever wheels and shafts turn. The Timken Roller Bearing Company, Canton, Ohio, U.S.A. Cable: "TIMROSCO". Timken bearings manufactured in Australia, Brazil, Canada, England, France and U.S.A.

Industry rolls on

TIMKEN®

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(since 1899)

Designers See Promise in Better Soft Magnets

MAGNETS no longer have to be made of rigid metal or ceramics. Particles such as barium ferrite today are incorporated into plastics or rubber and then cut or shaped for valuable consumer and industrial applications.

The techniques for producing flexible magnets have been improving fast. The range of rubbery materials that can be magnetized has increased. And this has meant magnets that are more permanent than in the past, and have more coercive force.

• **Toys and Motors**—These changes have radically altered the design horizon, according to a recent report in McGraw-Hill's *Product Engineering*. Flexible magnets, which at first were used largely as closure mechanisms, now are being groomed for use in toys, bicycles, motors, and conveyors.

For example, Britain's Swift Levick & Sons has recently begun producing meter-wide magnetic sheeting made of neoprene and other elastomers. One idea is to use the new material for bicycle tires. Magnetism on the outside diameter of the tire would generate electricity for the bicycle's lights.

Soviet engineers hope to mold a recently developed magnetic paste (IM, Feb, p 76) into parts for tiny motors and transformers. The magnetized plastic parts will serve as insulators as well as magnets.

But the most immediate applications for these new materials will be as closures, and devices that give under pressure but then close themselves when the pressure drops. Refrigerator doors are typical. Flexible magnets are already being used experimentally as full-door liner-closers for refrigerators.

• **Design Value**—Many factors contribute to the design value of flexible magnets. They offer light weight, chemical resistance, and ease of fabrication that can not be matched by metals and ceramics. Furthermore, some of the newer materials come close to matching rigid materials in coercive force and energy product.

A major advantage of the flexible magnets is that they can be magnetized in a wide variety of patterns, on one or both sides. The strongest pull, however, is obtained with a one-side magnetization on the broadest face.

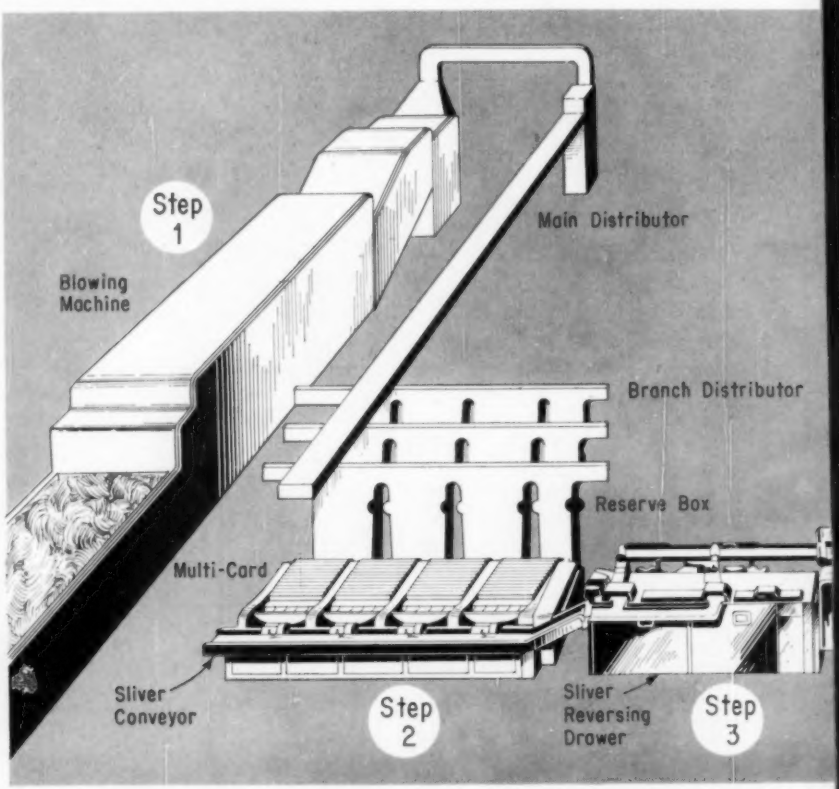
Cost also may favor flexible magnets. Prices vary greatly, but centimeter-wide magnetic strip often can be bought for less than 35¢ a meter. Installation is usually a simple matter.

• **And Design Problems**—Flexible magnets usually can not be directly substituted for rigid ones. They do not have the strength, nor the proper magnetic-flux configuration.

A strip of magnetized plastic or rubber will hold little more than a kilogram, while metal magnets hold several times as much.

Other problems in applying flexible magnets relate to the specific base material. Rubber-based materials often lack resistance to oil, and tend to stiffen on aging. Plastics, on the other hand, stiffen in cold and soften under heat.

• **Unlimited Future**—Yet proponents of flexible magnets see almost no limit to potential types and applications. Here are two more suggestions for consumers'



Five Operators Take the Place

THE FLOW DIAGRAM above may be the harbinger of a new day for textile technology. Not surprisingly, it comes from Japan.

What it describes is a spinning system designed by Toyo Spinning Co. that integrates seven processing steps into one highly-mechanized, almost continuous operation. A prototype of the system is now turning out quality yarn at Toyo's Futami plant.

It is, according to McGraw-Hill's *Textile World*, a most significant step in the mechanization of textile-making. Meanwhile from the U. S. A. come reports that one company will soon build an automatic spinning mill in South Carolina, that a machinery manufacturer is

products: belts that hold by having ends overlapped; fastener boxes that hold their contents even when tipped.

Flexible magnets are being offered with a variety of facings and backings—paper coverings and pressure-sensitive adhesives, for example. And a U.S. company is working on an iron powder that can be sprayed on nonmagnetic materials to provide—not a magnet, but a surface that will attract a magnet.

Another U.S. firm is so eager to see flexible magnets move into new fields that it is marketing a kit of magnetized material. For $4.95, a buyer gets samples of strip, coils and cord. ●

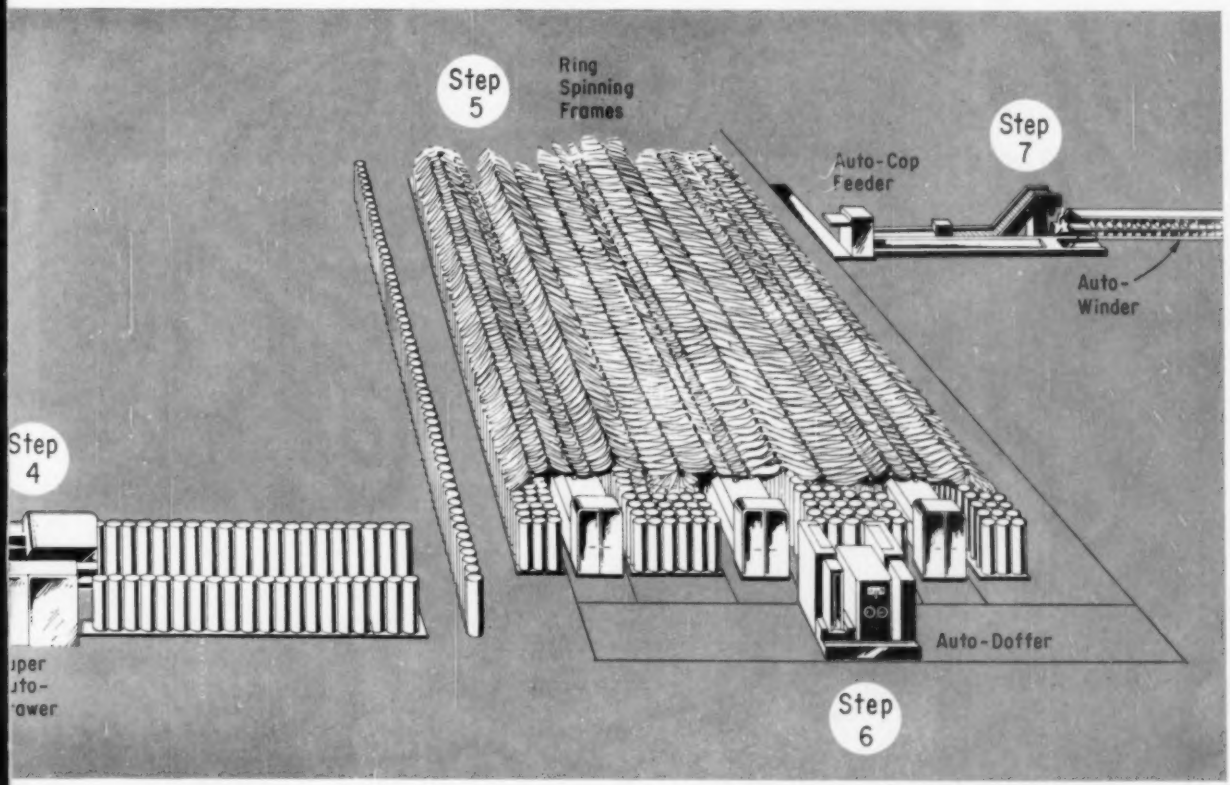
Flexible Tubes Find New Applications

FLEXIBLE TUBING made by coating spring steel with fiberglass, Dacron, nylon, or some other resin today is replacing rigid metal ducts in a wide range of applications.

Tubing of this kind first proved itself as ventilating ducts in naval ships. Now U.S. manufacturers are turning out similar products in sizes from 3 to over 30 centimeters for everything from vacuum-cleaner hoses to air-conditioning and materials-handling systems. One flexible-tube system is being used to unload grain pneumatically from a ship.

• **Easy to Install**—Users like the new product because it is lightweight and easy to install. The ducts can be used in a wide range of temperatures, bent around obstructions and snaked through tight places. Installation requires only a pocket knife, side cutters, and an adhesive.

The steel core gives the outer covering relatively high strength and crush resistance. The absence of corners makes for extremely smooth air flow, despite the number and angle of turns. And the tubing is reported to outlast and outperform rigid ducts in respect to flame, water, and chemical resistance. (*Purchasing Week, Jan 9, p 25*)



# of a Score of Handling Men

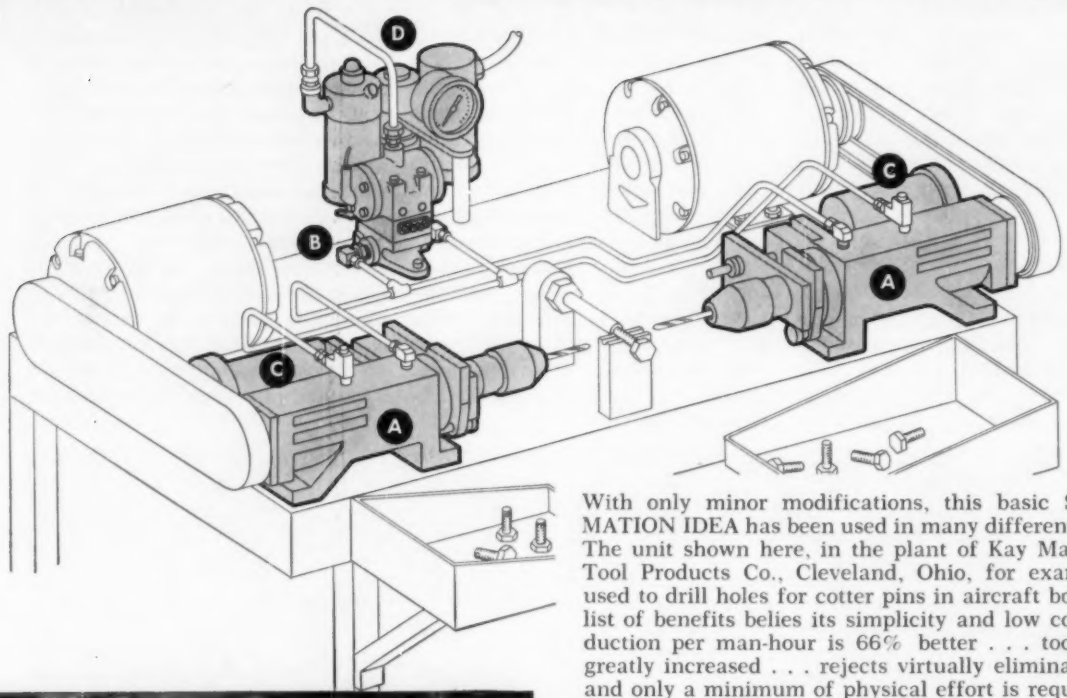
nearly ready to announce its own continuous automatic system.

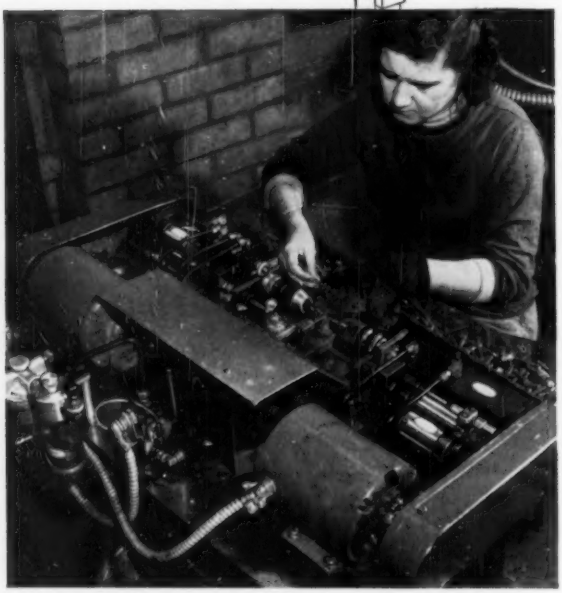
• **Manpower**—Five men operate the entire, 6,000-spindle Toyo plant. One takes care of the initial opening-cleaning equipment (Step 1). Another handles the two drawers (Steps 3 and 4). Two spinners each watch over 3,000 spindles (Steps 5 and 6), while the fifth operator tends the winder.

In a conventional system, a similar plant might use 15 or 20 men. They would be employed at carrying laps of cotton from the opener to the carding machines, cans of partially processed thread (sliver) from the cards to the drawers, from drawers to spinning frames, from one frame to the next.

The only conventional handling operation that remains is the transfer of the cotton to the frames. Everything else is mechanized. The opening machine produces no lap, but instead moves a continuous mat of loose cotton to the cards (Step 2). Rope-like sliver goes by conveyor from the cards to the drawers. An automatic doffer even removes the bobbins from the spinning frames and feeds them to the winder.

YOUR OWN MEN CAN BUILD THIS PRECISION MACHINE FOR CUTTING COSTS IN DRILLING METALS, PLASTICS AND WOOD





As shown in the photo above and "keyed" in the drawing, this shop-built drilling machine consists essentially of two low-cost, air-operated Bellows-Locke Model 22A Drill Units (A), a Bellows Electroaire® operating control valve (B), two Bellows Hydro-Checks® which provide smooth precision operation (C) and a Bellows Lubri-Air® Control Unit which cleans, regulates and lubricates the air supply (D). Not visible is the foot-operated control pedal.

697C-4

With only minor modifications, this basic SPOT-A-MATION IDEA has been used in many different plants. The unit shown here, in the plant of Kay Machine & Tool Products Co., Cleveland, Ohio, for example, is used to drill holes for cotter pins in aircraft bolts. The list of benefits belies its simplicity and low cost: production per man-hour is 66% better . . . tool life is greatly increased . . . rejects virtually eliminated . . . and only a minimum of physical effort is required for what formerly was a very fatiguing operation.

The machine is built around two compact interlocked Bellows-Locke Model 22A Drill Units — air operated, hydraulically controlled — mounted horizontally in opposed positions. Automatic feeding, positioning and ejection could be incorporated easily by the addition of other Bellows "Controlled-Air-Power" Devices. This SPOT-A-MATION IDEA can be readily adapted to perform a wide range of other operations, such as punching, forming, riveting, crimping, etc., by using such other Bellows work units as The Bellows Air Motor® in place of the Drill units.

This machine is typical of the ways cost-conscious men the world over are using Bellows "Controlled-Air-Power" Devices to secure faster, better, lower-cost production. Opportunities exist in your plant, too. Why not investigate — *today!*

THIS "SPOT-A-MATION IDEA" FILE IS YOURS ON REQUEST

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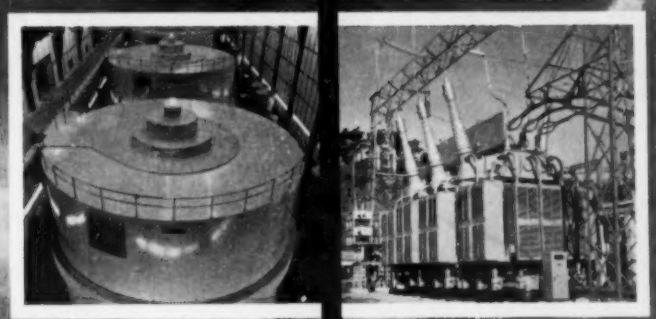

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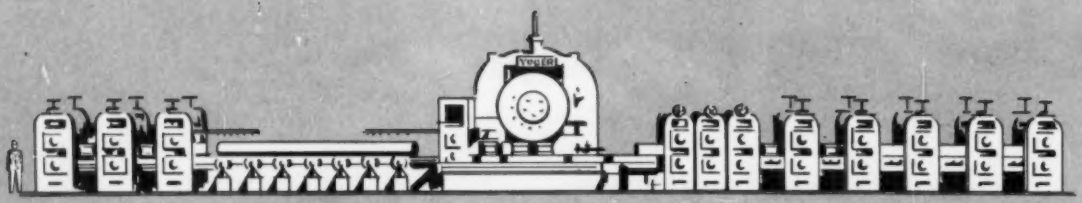

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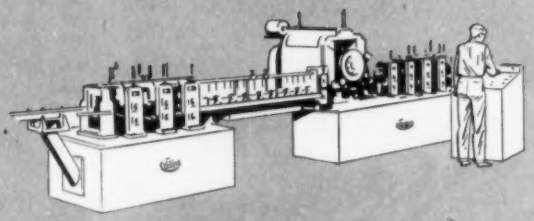

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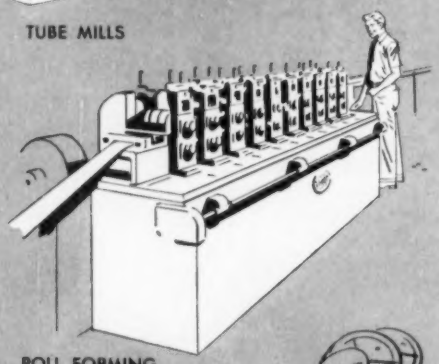

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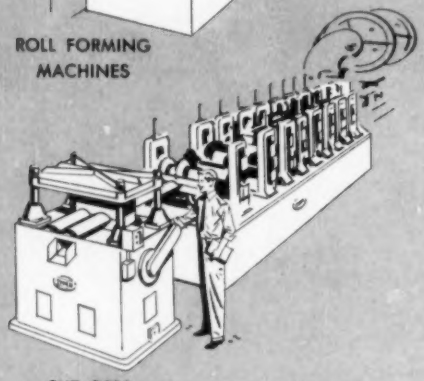

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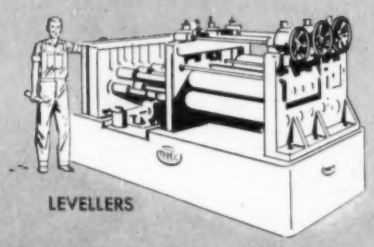

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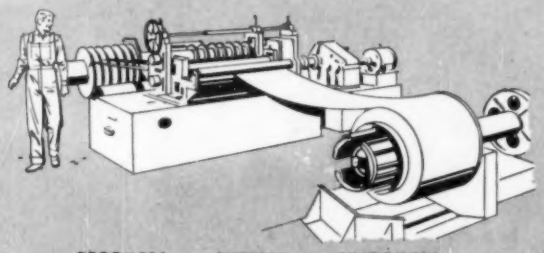

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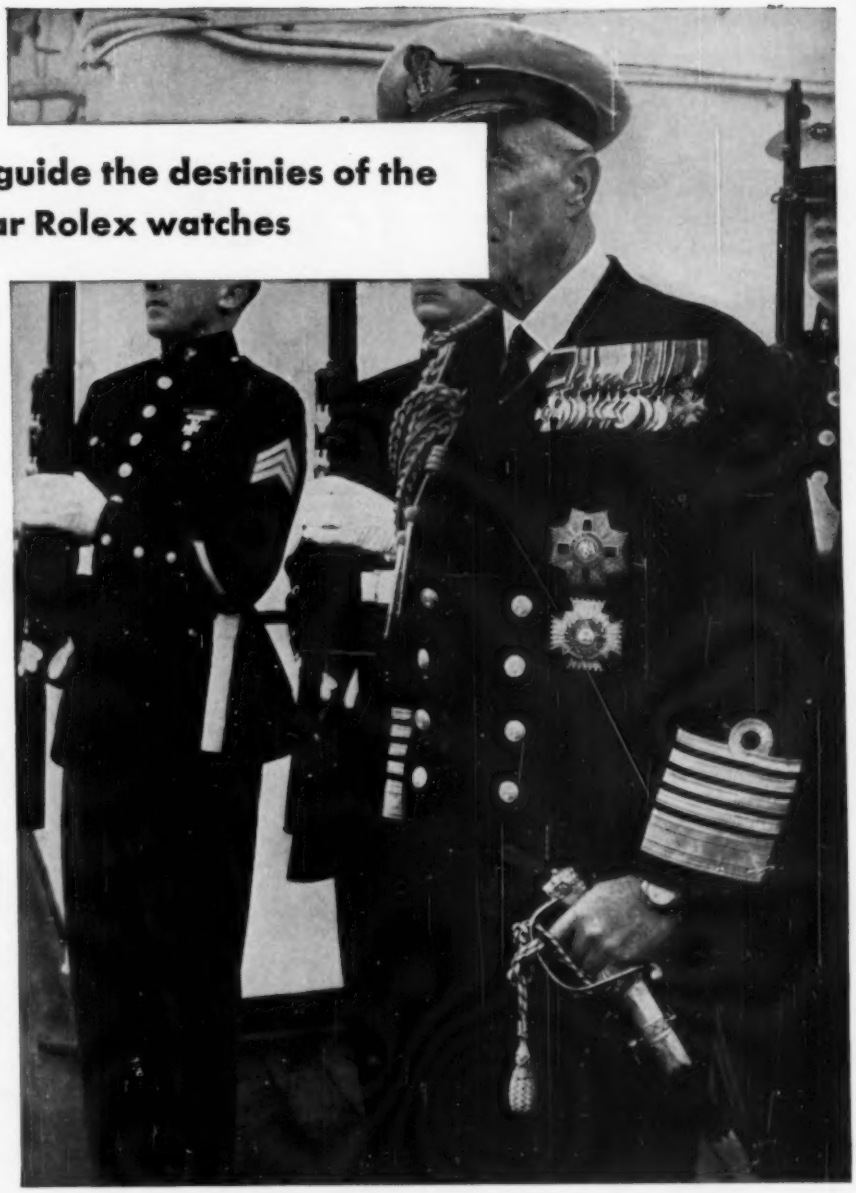

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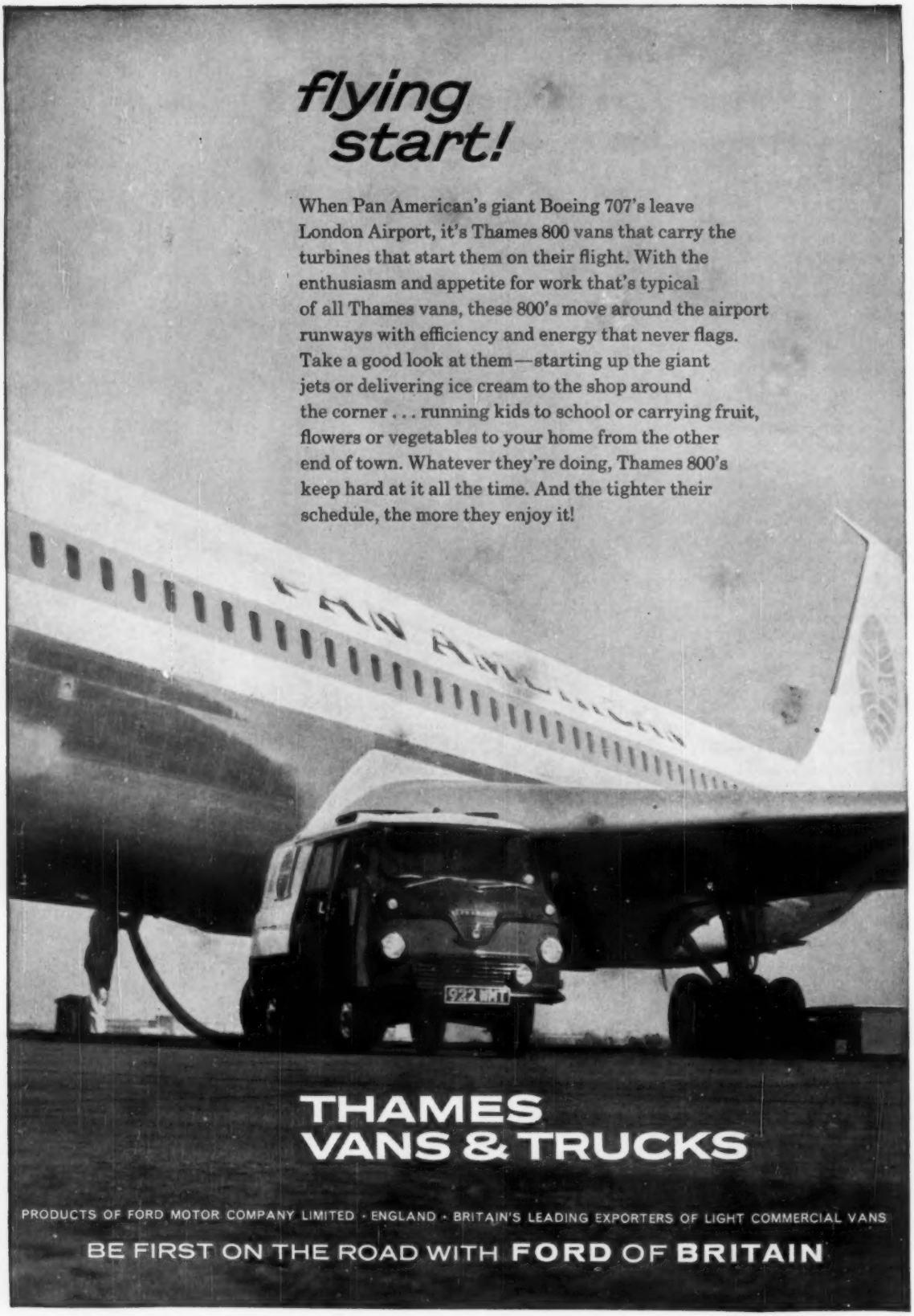
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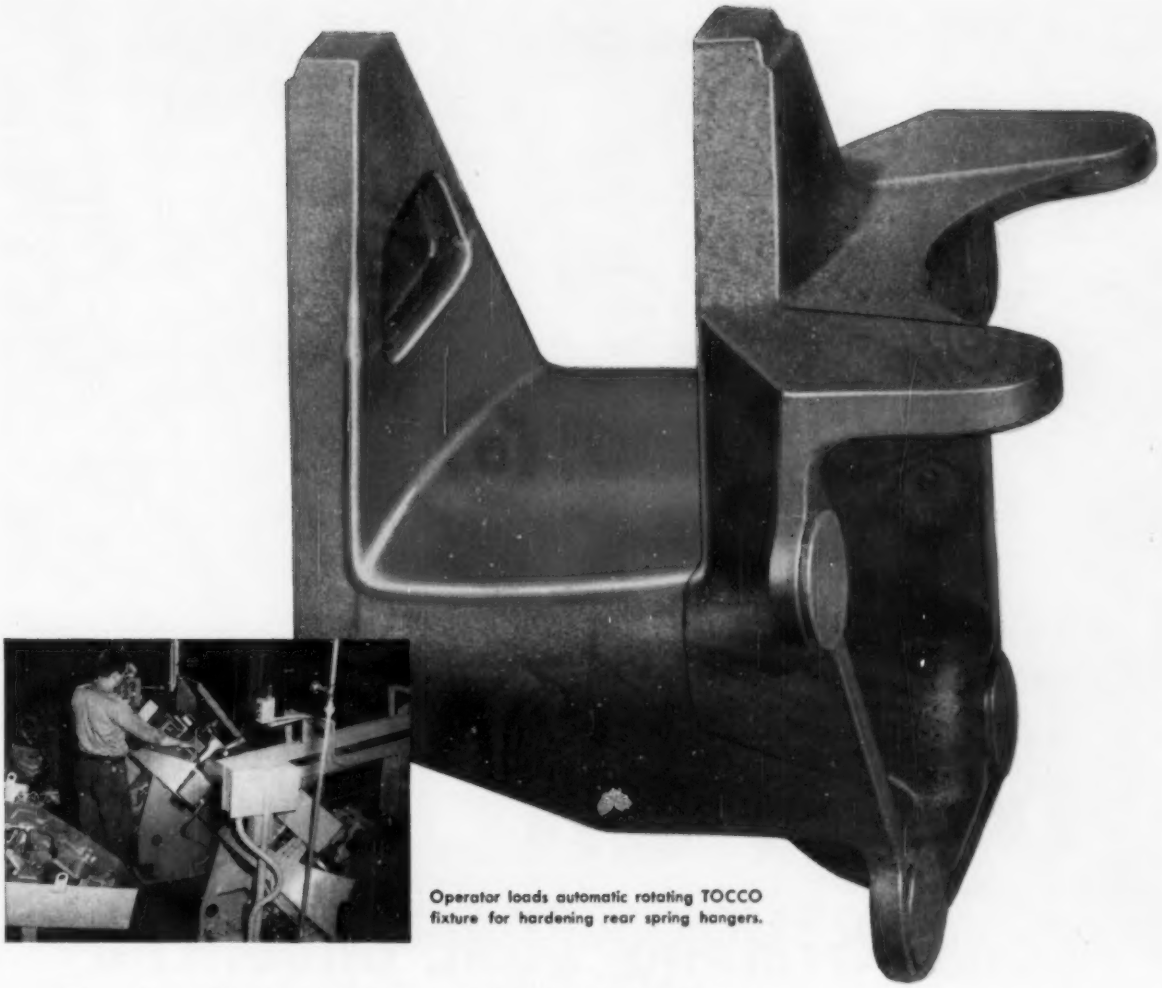

Operator loads automatic rotating TOCCO fixture for hardening rear spring hangers.

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This unusually shaped part is a rear spring hanger used in the spring suspension system of a major truck manufacturer. The hardness pattern covers the "flat" section, which actually isn't flat but blends two widely varying radii, and the sides or "ears" a portion of which must be hardened to the same depth—.060" to .090". Nine of these irregularly shaped castings are loaded in a rotating fixture and scanned progressively by a TOCCO inductor block at the rate of one per minute. An air gap of .060" is maintained between the inductor and the part—quite a tricky achievement since the spring hangers are unmachined castings with normal foundry tolerances of ±.045".

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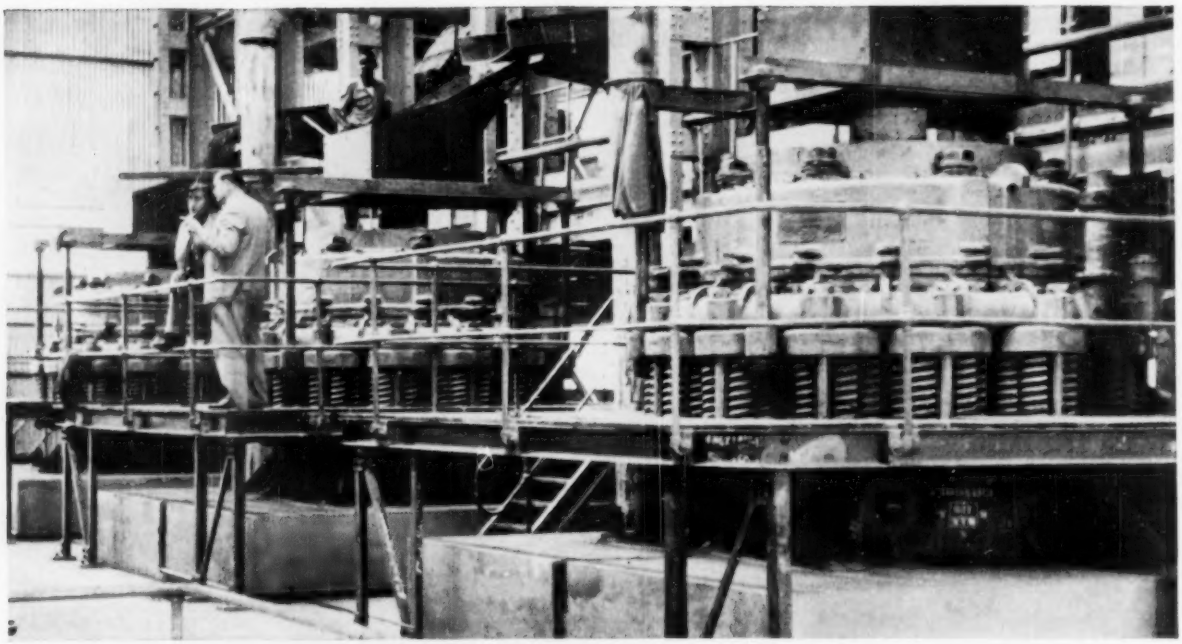

• Shown above are three of five Symons Cone Crushers serving a typical copper mine installation in Northern Rhodesia.

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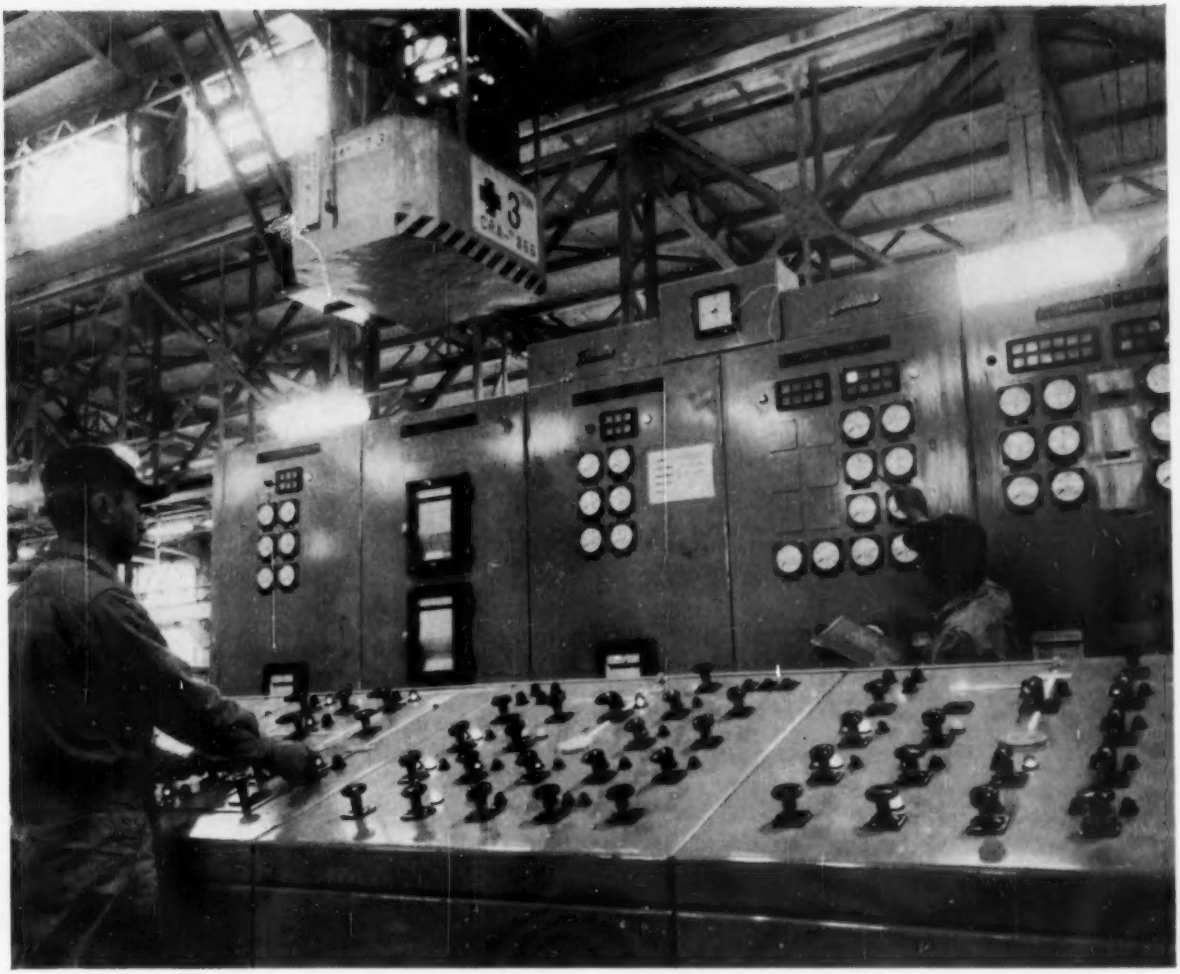

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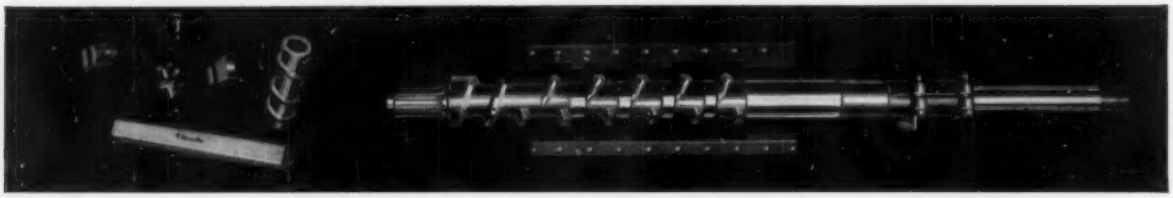

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NATIONALIZED INDUSTRY AND PUBLIC OWNERSHIP, by William A. Robson, is an account of British nationalized industries, their achievements and shortcomings, over the last ten years. It contains a wealth of information on organization, management, labor relations, financial policies, research and development. The theories that have emerged regarding how public enterprises should be run are discussed. *George Allen and Unwin Ltd., 40 Museum Street, London WC1, England. 544 pages,* $7.00 *or* 50*s.*

PACKAGING FOR PROFITS explores current packaging trends in the U.S. Case studies analyze company packaging practices that have resulted in increased profits, discoveries in research, the integration of packaging with product planning. *American Management Assn. 1515 Broadway, New York 36, N.Y., U.S.A.* $3.00.

Are there "hidden forces" persuading consumers to spend their money foolishly? Much popular literature in the U.S.A. says this is the case (see "Marketing" on another page). THE SPENDERS, by Steuart Henderson Britt, attempts to put the forces behind spending behavior in less sensational perspective. It tells why people spend their money, where they spend it, and what they spend it on. The effects of advertising, brand "images," motivation research are explored. *McGraw-Hill Book Co., 330 West 42nd Street, New York 36, N.Y., U.S.A. 293 pages,* $4.95.

PRINCIPLES AND DESIGN OF PRODUCTION CONTROL SYSTEMS, by Evan D. Scheele, William L. Westerman, and Robert J. Wimmert, covers the basic design of control systems, forecasting techniques, process planning, material and tool control, etc., and explains how these principles can be applied to almost any activity in the plant. *Prentice-Hall, Inc., Englewood Cliffs, N.J., U.S.A. 370 pages,* $9.00.

How companies find new management talent is explored in EXECUTIVE RECRUITING, by Arthur J. Benis and others. The authors cover such executive procurement problems as: the need for job specifications, inducements to attract good men, the choice of recruiting methods, professional recruiters, and "pirating" of executives. *Executive Reports Associates, Lake Forest, Ill., U.S.A. 105 pages,* $12.50.

DIRECTORIES, REFERENCES

The 1961 edition of the WORLD TRADE DATA YEARBOOK is now available. This reference lists U.S. banks having active foreign departments, overseas buying agencies, communications charts, international advertising media, air services, freight forwarders, a steamship directory, plus the latest study of export credit terms. *International Trade Review, 99 Church Street, New York 8, N.Y., U.S.A.* $2.00.

SOURCES OF CREDIT INFORMATION ON FOREIGN FIRMS lists principal foreign credit reporting facilities in the U.S. and other countries. *Supt. of Documents, U.S. Government Printing Office, Washington 25, D.C., U.S.A.* 30¢.

Business International has published the 1960 edition of its INVESTING AND LICENSING CONDITIONS IN 37 COUNTRIES—providing data on establishing businesses, licensing agreements, transfer of earnings and capital, taxes, labor, tariffs, etc. *Business International, 200 Park Avenue South, New York 3, N.Y., U.S.A. 154 pages,* $60.00.

DATA PROCESSING ANNUAL (Vol. 2) will prove a valuable reference for users of punched card, punched tape equipment, and business computers. A "Computer Guide" feature displays all commonly-used types of computers with basic descriptions and characteristics, plus a "Comparison Chart" giving specifications of each. Applications are included. *Gille Associates Inc., 22nd Floor Book Tower, Detroit 26, Mich., U.S.A., 260 pages,* $15.00.

SPECIAL REPORTS

ROLLING-ELEMENT BEARINGS contains eight articles that have appeared in *Product Engineering* on ball, roller, and thrust-type bearings, seals and shields tests, lubricants, causes of failures. $2.00.

Power magazine has published a 48-page special report on AIR POLLUTION—its causes and remedies (Dec, p67). $1.00.

Chemical Engineering's annual review and forecast—CLOUDY BUT CLEARING: CPI FORECAST FOR '61 (Jan 9, p83)—covers current developments in petro-chemicals, fuels, fibers, plastics, metals, fertilizers, and industrial gases, with "predictions of things to come." 50¢.

CONTAINERIZATION: POTENTIALS AND PITFALLS—an up-to-date study on the subject by the editors of *Fleet Owner* (Jan, p61). 75¢.

THE NEW MATHEMATICS, a collection of 18 articles from *Product Engineering*, covers linear and dynamic programming, design of experiments, multivariable experiments, regression and dimensional analysis, theory of similitude, the queueing theory. $2.00.

Chemical Engineering's NEW PROCESSES AND TECHNOLOGY reviews significant developments in the chemical process industries for the period March through Oct. 1960. 50¢.

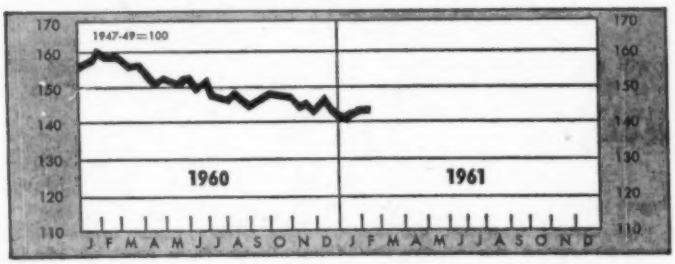
(For copies of the above McGraw-Hill reprints, write to the Editors, INTERNATIONAL MANAGEMENT, *and your request will be forwarded to the publication in question.)*

Personal Business

Come to the fair in 1961

AFGHANISTAN		
Jeshyn Fair	Kabul	Aug 23–29
ALGERIA		
Int'l Trade Fair	Constantine	May 18–Jun 1
AUSTRALIA		
Royal Easter Show	Sydney	Mar 24–Apr 4
Int'l Boat Fair	Melbourne	Jul 19–29
Industries Fair	Sydney	Aug 1–12
AUSTRIA		
Int'l Trade Fair	Vienna	Mar 12–19 Sep 3–10
Southeast. Fair	Graz	Apr 29–May 7 Sep 30–Oct 8
Trade Fair	Innsbruck	Sep 23–Oct 1
BELGIUM		
Int'l Trade Fair	Brussels	Apr 29–May 11
Int'l Trade Fair	Liege	Jun 3–18
Int'l Plastics Fair	Ghent	Jun 16–25
Int'l Trade Fair	Ghent	Sep 9–24
European Mach. Tool Exhib.	Brussels	Sep 3–12
CANADA		
Int'l Trade Fair	Vancouver	May 3–13
Int'l Office Exh.	Montreal	May 14–16
Can. Nat. Exh.	Toronto	Aug 25–Sep 11
Int'l Trade Fair	Montreal	Oct 5–15
COLOMBIA		
Indus. Trade Fair	Bogota	May 8–Jun 14
CZECHOSLOVAKIA		
Int'l Trade Fair	Brno	Sep 10–24
DENMARK		
Danish Food Fair	Aalborg	Jun 2–11
Int'l Plastics Exh.	Copenhagen	Sep 22–Oct 1
FINLAND		
US Indus. Exhib.	Helsinki	May 26–Jun 11
FRANCE		
Int'l Trade Fair	Lyon	Mar 4–12
Int'l Trade Fair	Lille	Apr 22–May 7
Int'l Trade Fair	Paris	May 18–29
Int'l Aero. Exhib.	Paris	May 26–Jun 4
Int'l Trade Fair	Bordeaux	Jun 15–26
Int'l Text. Fair	Paris	Jun 23–29
European Fair	Strasbourg	Sep 2–17
Int'l Trade Fair	Marseille	Sep 21–Oct 2
Int'l Trade Fair	Metz	Sep 27–Oct 8
Int'l Automobile & Cycle Show	Paris	Oct 5–15
GERMANY		
German Indus. Fair	Hanover	Apr 30–May 9
Chemical Congress & Exhib.	Frankfurt	Jun 9–17
Int'l Leather Goods Fair	Offenbach	Sep 2–7
Int'l Trade Fair	Frankfurt	Sep 3–7
Int'l House- & Hardware Fair	Cologne	Sep 8–10
Int'l Auto. Exhib.	Frankfurt	Sep 21–Oct 1
Int'l Food Fair	Cologne	Sep 23–Oct 1
German Industries Expos.	Berlin	Oct 14–29
Int'l Book Fair	Frankfurt	Oct 14–19
GERMANY (EAST)		
Int'l Trade Fair	Leipzig	Mar 5–14 Sep 3–10
GHANA		
US Indus. Exhib.	Accra	Nov 1–30
GREECE		
Int'l Fair	Thessaloniki	Sep 3–24
HUNGARY		
Indus. Fair	Budapest	May 19–29
ITALY		
Int'l Samples Fair	Milan	Apr 12–27
Int'l Handicraft Fair	Florence	Apr 24–May 14
Int'l Trade Fair	Bologna	May 8–22
Int'l Medit. Fair	Palermo	May 27–Jun 11
Int'l Samples Fair	Padova	May 29–Jun 13
Electronic & Nuc. Energy Exhib.	Rome	Jun 12–25
Int'l Textile Mkt.	Milan	Jun 20–26
Int'l Trade Fair	Trieste	Jun 21–Jul 5
Int'l Levant Fair	Bari	Sep 6–21
Int'l Tech. Expos.	Turin	Sep 23–Oct 5
Int'l Motor Show	Turin	Oct 28–Nov 11
INDIA		
Indian Ind. Fair	New Delhi	Nov 14–Jan 1 1962
JAPAN		
Int'l Trade Fair	Tokyo	Apr 17–May 7
LEBANON		
Indus. & Comm. Expos.	Beirut	Jun 2–19
LUXEMBOURG		
Int'l Trade Fair	Luxembourg	May 26–Jun 4
MEXICO		
Comm'l, Indus'l, Agric'l Expos.	Veracrus	Mar 26–Apr 9
Brit. Equipt. for Mex. Industry	Mexico City	Sept 29–Oct 15
Brit. Equipt. for Mex. Developt.	Mexico City	Nov 3–19
MOROCCO		
Int'l Fair	Casablanca	Apr 27–May 14
NETHERLANDS		
Int'l Trade Fair	Utrecht	Mar 13–22 Sep 11–16
Int'l Packg. Exh.	Amsterdam	May 2–9
NEW ZEALAND		
Int'l Trade Fair	Wellington	Aug 22–Sep 9
PERU		
Pacific Int'l Trade Fair	Lima	Oct 12–29
POLAND		
Int'l Fair	Poznan	Jun 11–25
PORTUGAL		
Int'l Trade Fair	Lisbon	Jun 9–23
Int'l Text. Fair	Oporto	Jul 15–30
RHODESIA & NYASALAND (Fedn. of)		
Cen. Afr. Trade Fair & Exhib.	Bulawayo	May 3–14
SPAIN		
Int'l Samples Fair	Valencia	May 1–20
Int'l Samples Fair	Barcelona	Jun 1–20
SWEDEN		
Int'l Swedish Indus. Fair	Goteborg	May 6–14
Eur. Agric. & Indus. Fair	Jonkoping	May 25–Jun 4
St Erik's Fair	Stockholm	Aug 30–Sep 10
SWITZERLAND		
Int'l Auto. Show	Geneva	Mar 16–26
Swiss Indus. Fair	Basel	Apr 15–25
Int'l TV Equipt. Trade Fair	Montreux	May 15–27
TUNISIA		
Int'l Fair	Tunis	Oct 13–29
TURKEY		
Int'l Fair	Izmir	Aug 20–Sep 20
UNION OF SOUTH AFRICA		
Rand Easter Show	Johannesburg	Mar 21–Apr 3
UNITED ARAB REPUBLIC		
Int'l Fair	Damascus	Aug 25–Sep 20
UNITED KINGDOM		
Audio Fair	London	Apr 6–9
Eng., Marine, Welding & Nucl. Exhib.	London	Apr 20–May 4
Int'l Photo Fair	London	May 29–Jun 3
Int'l Plastics Exhib.	London	Jun 21–Jul 1
Int'l Packg. Exh.	London	Sep 5–15
Business Efficiency Exhib.	London	Oct 2–11
Int'l Motor Exh.	London	Oct 18–28
Eng. Materials & Design Exhib.	London	Nov 13–18
Int'l Factory Equip. Exhib.	London	Nov 13–18
UNITED STATES		
Indus. Packaging & Handling Expos.	Philadelphia	May 9–11
Nat. Packaging Exposition	Chicago	Apr 10–13
Int'l Trade Fair	Seattle	April
US World Trade Fair	New York	May 3–13
Int'l Super Market Exhib.	Chicago	May 7–10
Int'l Office Exp.	New York Atlanta	May 8–11 Oct 10–12
Nat. Plastics Exposition	New York	Jun 5–9
Int'l Home Furnishings Mkt	Chicago	Jun 19–29
Int'l Trade Fair	Chicago	Jul 25–Aug 10
Int'l Trade Fair	Houston	Sep 22–Oct 1
Chem. Indus. Expos.	New York	Nov. 27–Dec 1
YUGOSLAVIA		
Int'l Tech. Fair	Belgrade	Aug 23–Sep 2
Int'l Trade Fair	Zagreb	Apr 14–23 Sep 9–24

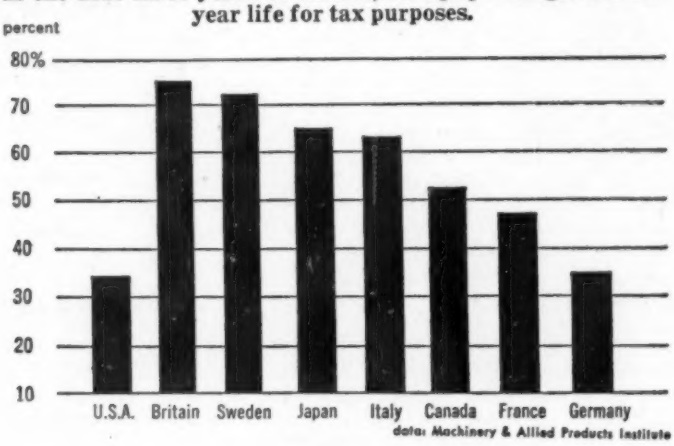
Business at a Glance



U.S. Business Trend

January was hardly disappointing because no one expected much; similarly with February. This month or next should bring the "turn" in the index; if it is not upwards, President Kennedy will call for stronger economic stimulants. But he and his advisers are optimistic that recovery will be underway by May (page 1). One sign: inventory liquidation by manufacturers seems to have reached the limit.

Capital consumption allowances obtainable in eight nations in the first three years of service, on equipment given a 15-year life for tax purposes.



data: Machinery & Allied Products Institute

Comparing Taxation

The impact of taxes on economic growth is under searching study in many nations —especially the U.S.A. where comparisons are being made with other countries' taxes (page 19). Depreciation allowances are a prime concern and the Machinery & Allied Products Institute states flatly that more liberal depreciation is a key to faster growth. Some of the allowances shown in the chart at left, admits MAPI, are frankly and openly incentives, not realistic depreciation in terms of equipment life. Meanwhile, others are comparing income tax rates (below) and conclude that Americans suffer the highest rates in the world. The First National City Bank urgently calls for "scaling down of excessive rates which lead to pressures for special relief."

Taxation by Central Governments of Corporate Profits Distributed as Dividends

	Maximum rate paid and withheld by corporation	Credit allowed individual shareholder
France	62%	24%*†
Netherlands	54.95	15†
United States	52	4
United Kingdom	51.25	38.75‡
Japan	50.90	30
Canada	50	20
Belgium	45.31	30†
Germany	42.58§	25†
Sweden	40	0
Australia	40	0
Switzerland	35.60	27†
Norway	30	0
U. of S. Africa	25	33.33-100
Italy	20	8

*Credit is 8% against taxable income and 16% against personal tax liability. †Deducted at source and credited to individual shareholder. ‡The individual, if subject to surtax rates on his personal income tax return, must, however, pay the surtax on the gross dividend actually declared rather than the net dividend actually received. §Ignoring the variable effect on the tax base of property tax on net worth.

Maximum Tax Rates Imposed by Central Governments on Undistributed Corporate Profits

United States	52%
United Kingdom	51.25
Germany	51
France	50.98*
Canada	50†
Netherlands	47
Japan	45.44‡
Belgium	40§
Australia	40
Sweden	40
Norway	34
U. of S. Africa	25‖
Italy	20¶
Switzerland	8§

*Includes tax levied on reserves of accumulated profits. †Includes 3% tax for old age security contribution. ‡There is an additional 10% tax on retained profits of closely held corporations. §Taxes paid in previous year are deductible in determining taxable income, thus lowering the effective burden. ‖An extra 25% tax is levied on profits (beyond certain limits) not distributed. ¶In addition, there is a 15% tax on profits in excess of 6% of capital and reserves.

Maximum (Marginal) Rates of Personal Income Taxation Imposed by Central Government

United States	91%
United Kingdom	88.75
Puerto Rico	82.95
Canada	80
Ireland	77.50
France	73*
Netherlands	72.50
Japan	70
Australia	66.67
Belgium	65
Sweden	65
Greece	63†
Austria	59.34
Italy	58
Mexico	33-55‡
Norway	55
Germany	53
Denmark	52.38§
U. of S. Africa	47.50
Switzerland	8

*Includes an 8% complementary tax on non-wage income. †Includes a 3% tax on investment income. ‡Tax rate applicable depends upon source of income. §Effective maximum, allowing for deductibility of previous year's tax, where income is stable.

data: First National City Bank of New York

McGRAW-HILL INTERNATIONAL MANAGEMENT'S

Last-Minute Memos

Copper Reduction: Low-grade ore will be turned directly into high-quality copper—without a melting step in between—at a $23-million plant to be bulit in the Philippines for Marinduque Iron Mines Agent, Inc. by the U.S.A.'s Foster Wheeler Corp. Direct reduction of the ore will be performed under patents developed by Sherritt Gordon Mines Ltd., of Toronto, and Chemetals Corp., New York. Equipment for converting the chemically-extracted copper powder into strip will be supplied by U.S.A.'s E. W. Bliss Co. The overall project will be backed by a $13-million loan from the Export-Import Bank of Washington.

Fish in Aluminum: Canada's Aluminium Ltd. will join with Portuguese interests, to form Fabrica de Emballagens de Aluminio Ltda. to produce aluminum cans for packaging fish—about 12-million cans a year—in a proposed plant at Matosinhos.

Alaskan Petroleum: Japanese investors are reportedly interested in a petroleum development plan that includes a refinery in Alaska, a pipeline to a deepwater port, and a methane liquification plant. Products would be marketed in both Alaska and Japan.

World Congress: It's not too late to make plans to attend the 18th biennial congress of the International Chamber of Commerce in Copenhagen, May 22 to 27. The theme this year is "Private Enterprise in Economic Development". Contact your national chamber or trade association for more information.

Diesel-Powered Jeeps: Willy-Overland Export Corp., U.S.A., has begun marketing its four-wheel-drive Jeeps overseas with four-cylinder diesel engines made by the Perkins Group, England, as a power option.

Industrial Financing: American Express Co. (IM—Feb) and C.I.T. Financial Corp. have formed Universal Kredit Bank to do industrial financing in West Germany. The new subsidiary will at first finance only the buying of German-made equipment, but it may later also help in the purchase of U.S. goods.

Stick-Proof: French-made aluminum frying pans coated with Du Pont's Teflon plastic are on the market in the U.S.A. The French manufacturer, Tefal S.A., reports it already has sold 3-million Teflon-coated cooking utensils in Europe.

Better Polyethylene: A British-patented chemical-irridation technique being used by Esso Research & Engineering is pointing the way toward linear polyethylene that will withstand temperatures of 205 C before melting—more than twice as high as can be used on the standard material. The resin is mixed with an aromatic hydrocarbon, then subjected to high-energy radiation.

Abandoned Capital: Brazilian officials are making a determined effort to attract industry to Rio de Janeiro, now that the national capital has moved inland to Brasilia. A proposed law would give new industries a ten-year exemption from local taxes.

Opportunity in the Balkans: Yugoslavia will be spending money in the U.S. and Europe to bring more efficiency to its factories. About $12-million will be spent this year for automation equipment, and far more in the years to come.

Foreign Labor: West Germany's big mail-order house, Quelle of Fuerth, plans to build two 11-story apartment buildings to house the several hundred female workers it has imported from Greece and Italy. The cost will be repaid by the federal government, which has set aside $24-million for building housing for foreign workers.

Market Research: Voting machines are being used at 160 A & P supermarkets in the U.S. to test consumers' preference for products, labels, and packaging. Customers answer questions by pushing buttons on the machines. The system for 160 units can yield 48,000 "opinions" in 72 hours.

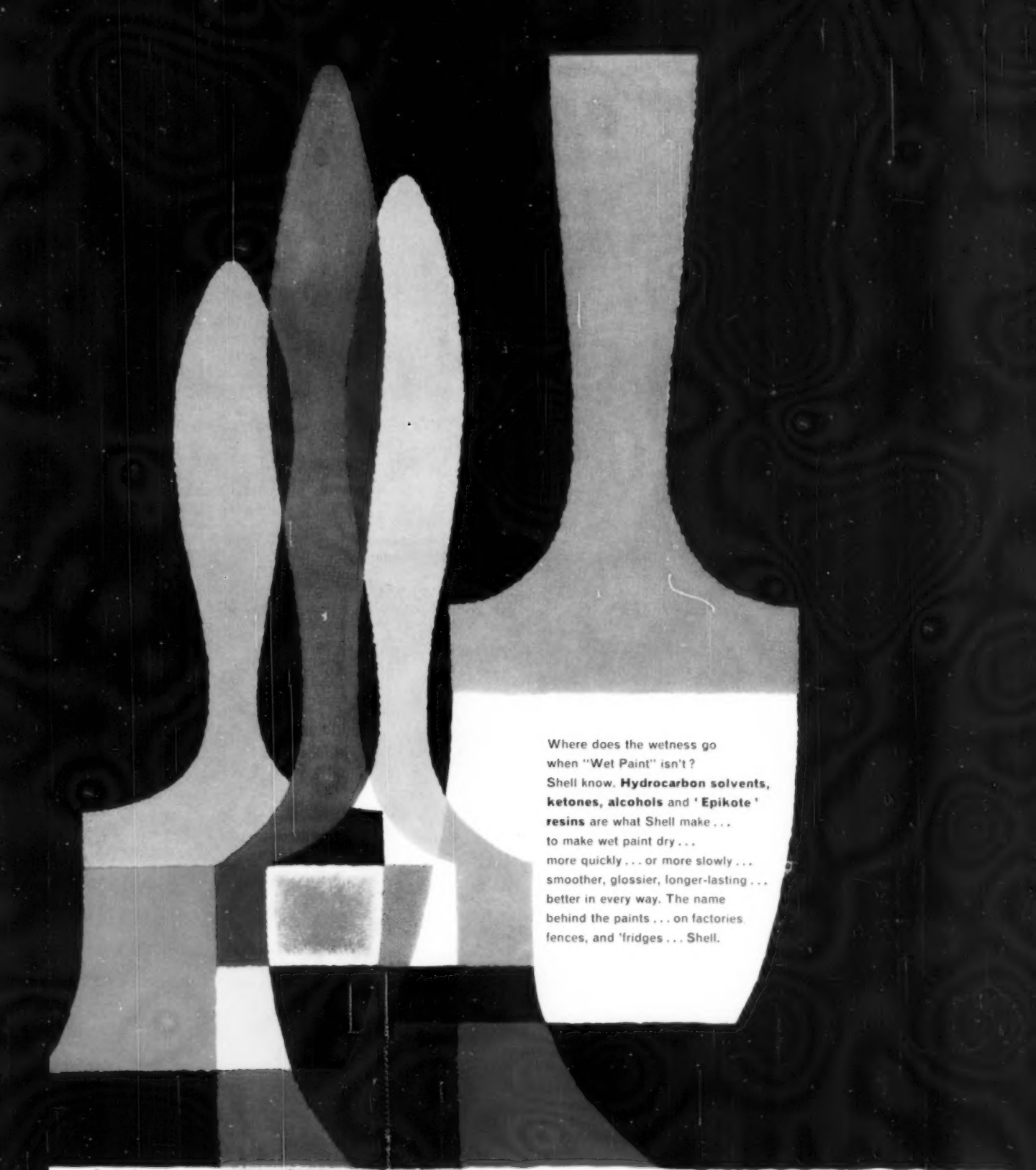
Orders from China: Japan's chemical industry has been getting a flood of fertilizer orders from famine-struck China (page 3), a total of 150,000 tons for delivery before March. The Japanese will make every effort to meet the Chinese demands.

Shipping a Refinery: A 4,000-barrels-per-day petroleum refinery that was built almost entirely in the U.S.A. soon will go on stream at Puerto Barrios, Guatemala. Sections of the refinery were shipped on skids. The "portable" plant was designed because of Guatemala's heavy rainfall and lack of skilled labor.

New Business: After a century of concentrating on sales of its own nameplate through retail outlets, Singer Sewing Machine Co. is now going into the mail-order business to sell just about any consumer product by mail—except a Singer sewing machine. Singer has been quietly testing the program (everything from toys to television sets) for over a year, and now is setting up a mail-order division for the U.S. and Canada. Singer turned in this direction as a means of raising its rate of return on invested capital.

Tubes from Ingots: U.S.A.'s White Mfg. Co. has developed a technique for turning out collapsible tubes directly from primary aluminum ingots at the rate of 750,000 units a day. Fully automatic equipment draws the aluminum into strips, punches out slugs at the rate of 11 to 13 kilograms per minute, then forms them into tubes on impact extrusion presses.

Trading Stamps: A small chemical company in the U.S., Circo Corp., has begun handing out gift-redemption trading stamps with the sale of industrial products. Such stamps, which later are exchangeable for a wide variety of gifts, in the past have been given out only with the sale of consumers' products.



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In Industry and Agriculture

SHELL CHEMICALS

SHELL

BUSINESS THROUGHOUT THE WORLD DEPENDS ON BURROUGHS

Bristol-Myers of North Sydney reports on the Typing Sensimatic—a machine designed for all kinds of descriptive accounting.

"The savings on accounting costs in one year will pay for our Burroughs Typing Sensimatic"

"We installed our Burroughs Typing Sensimatic only after a careful study of the whole range of machines available. After months of operation we now can tell you that we are very pleased with this equipment. It is fast, easy to operate and efficient. Our operator, who had not previously used any accounting machine, had no difficulty in mastering the Typing Sensimatic. Our savings on accounting costs in one year will more than pay for the machine." Bristol-Myers Company Pty. Ltd., Manufacturing Chemists, North Sydney, Australia.

BRAZIL

HELENA RUBINSTEIN, RIO DE JANEIRO
(Beauty Products)

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FRANCE

CEGEDUR CO., PARIS
(Nonferrous Metals)

"Burroughs Sensimatics help us to efficiently record the operations of our eight busy factories. The Sensimatic is exceptionally fast, accurate and easy to use."

Burroughs

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